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Report on the projected Northwest railway of Canada.



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PRELIMINARY REPORT

ON THE PROJECTED

NORTH-WEST RAILWAY

OF CANADA.

WITH A DESCRIPTION OF THE EXTENT. PHYSICAL FEATURES, SOIL AND SETTLEMENT OF THE COUNTRY THROUGH WHICH IT IS PROPOSED TO BE CONSTRUCTED,

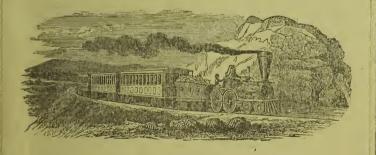
SHOWING THE IMPORTANCE OF THE

VALLEY OF THE RIVER SAUGEEN

AS A FIELD FOR COMMERCE AND RAILWAY ENTERPRISE,

GREAT BENEFITS,

LOCAL, PROVINCIAL, AND OTHERWISE, WHICH WOULD RESULT FROM THE ESTABLISHMENT OF THE PROPOSED LINK OF COMMUNICATION.



SANDFORD FLEMING,

Engineer.

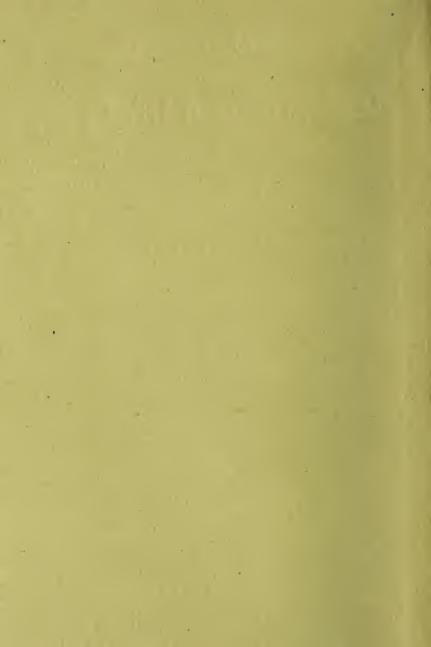
TORONTO:

BLACKBURN'S CITY STEAM PRESS,

63, YONGE STREET.

1857





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SANDFORD FLEMING,

TORONTO:

BLACKBURN'S CITY STEAM PRESS,

63, YONGE STREET.

1857.

DIRECTORS.

President :

J. B. ROBINSON, Esq.

Vice-President :

JOHN DUGGAN, Esq., CHARLES ALLEN, Esq., W. K. FLESHER, Esq.

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JOHN G. BOWES, Esq., M. P. P.
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JAMES BEATTY, Esq.,
MARCUS ROSSIN, Esq.,
W. F. MEUDELL, Esq.,

JOHN EWART, Esq.

CANADA NORTH-WEST RAILWAY,

TORONTO, December, 1856.

In laying before the public the following Report on the projected North-West Railway, the Directors feel that is scarcely necessary for them to say anything additional to what is therein expressed, in order to show the vast importance of the contemplated undertaking. At a meeting in July last, they nominated Mr. Fleming to examine the country, preliminary to more minute surveys,—to collect as much information regarding its features and capabilities as circumstances would admit, and to report generally on the merits of the project: the results of his enquiries as herein given are most satisfactory and encouraging. The Report enters very fully into the merits of the enterprise, describes the nature and extent of a rich district only very partially known, and illustrates from undoubted evidence the great benefits which the construction of the work would confer on the country it is intended to serve, as well as on the Provincial line of Railway, and the City of Toronto. To the first it would form an outlet for its productions at all seasons, enhance the value to a marvelous extent of every acre of land, and hasten the full developement of its natural resources—to the second it would be a feeder of no small value—and to the last it would add another back country, having a rich virgin soil, greater in extent than the Counties of York, Ontario, Peel, and Simcoe, and in part, at least, far more fertile; it would draw an additional stream of through traffic to the City and its Harbour, and result in even greater advantages to Toronto than have proceeded from the construction of the Northern Railway.

Fully impressed with the belief that the establishment of the proposed avenue of commerce would confer substantial and lasting benefits on the City of Toronto and on the whole extent of country it would intersect and accommodate from Guelph North-Westerly; and convinced that the true and perhaps the only way to bring the undertaking to a successful issue is for the various Municipal bodies interested, to promote its initiation by liberal subscriptions or guarantees; the Provisional Directors, desirous that the matter should be fairly and fully placed before them, have much satisfaction in submitting the Report of the Engineer to their consideration.

The valuable correspondence on the local benefits of Railways, as well as the various articles on the growth and trade of the great North-west in reference to prospective through traffic, to which Mr. Fleming alludes, are so extremely interesting and important that they are given in full in Appendices.

JOHN BEVERLEY ROBINSON,

President.

CANADA NORTH-WEST RAILWAY.

TORONTO, Nov. 28, 1856.

To the President and Provisional Directors:

GENTLEMEN-

In pursuance of your instructions, dated July 23d of the present year, I have now the honour to address to you a preliminary Report on the projected Saugeen Railway.

By the Act of Incorporation passed during the last Session of the Provincial Parliament, this project is intended to be carried out under the name of the

" Canada North-West Railway Company."

The third clause of the act empowers the Company to "construct and complete a railway connection between Lake Huron at or near the town of Southampton (or Saugeen) in the County of Bruce, and Lake Ontario at Toronto, with full power to pass over any portion of the Counties of Wellington, Grey and Bruce, to intersect and unite with the Grand Trunk Railway at the Town of Guelph, as provided by the ninth section of the Railway Clauses Consolidation Act, and to construct a Fork or Branch to Owen Sound from any point north of Durham,"

Your instructions did not authorize me to incur the expenses incident to an instrumental survey of the country between the proposed termini, and therefore the following observations will not embrace suggestions as to the probable or most suitable line of location; but as it is your desire that I should enter, as fully as the information at my command enables me, into the character of the country proposed to be served by the contemplated work, I beg to submit the following results of recent enquiries, and a tour through the townships of the extensive district in question to your consideration.

GEOGRAPHICAL POSITION AND EXTENT OF COUNTRY.

It will much facilitate our conception of the relative geographical position and extent of the series of large river valleys through which the North-West Railway would either actually pass, or render tributary to its maintenance, if we allow ourselves to suppose an air line to be drawn from Goderich on Lake Huron, to Collingwood Harbour on the Georgian Bay. Let another air line be conceived to run parallel to the one first mentioned, from the Town of Stratford, to Bradford on the Holland River. direction of these imaginary lines is north-easterly, and an air line from Guelph to the mouth of the river Saugeen, would cut them very nearly at right angles, and have consequently a general north-westerly direction. Each of these imaginary lines is very nearly 90 miles in length, and the two first indicate the extreme width between railways in actual operation, namely, the Northern Railway, (Ontario, Simcoe and Huron,) from Toronto to Bradford and Collingwood, and the Buffalo and Lake Huron Railway from Stratford to Goderich. It thus appears that the spanning of a distance of about 90

uniles from Guelph north-westerly, and on a line nearly equi-distant from existing railways, is all that is required to connect Lake Huron at a point, or points, named in the charter, with Lake Ontario at Toronto, via the Grand Trunk from Guelph to the

last named city and port.

With a view to illustrate still more minutely the imposing area of country your railway is destined to serve, we may imagine a circle to be described, having its centre in the Township of Normanby, and with a radius of about 45 miles; its circumference will be found to pass from Goderich very nearly along the line of the Goderich Railway to Stratford, from Stratford along the Grand Trunk through Berlin to Guelph and Acton, and thence curving through the Townships of Erin, Caledon, Albion, Adjala, Tossorontio and Sunnidale, it will pass along the Northern Railway to its terminus at Collingwood Harbour on the Georgian Bay. It will then follow the line of coast to Owen Sound, traverse the Indian Peninsula to Saugeen, and finally reach Goderich, its starting point, after sweeping the coast of Lake Huron. This circle contains an area of 6000 square miles, and it is well worthy of note that no similar circle, having more than one-sixth part of the land area just mentioned, can be described in any part of the settled portion of the Province of Canada, within whose limits there has as yet been less expenditure of money in the construction of public works of any kind. If we assume that round the south-eastern semi-circumference of this great circle. the existing railways by which it is bounded will serve a strip of country from 20 to 25 miles wide, there will still remain nearly two million acres yet unsupplied by railway service, and it is through the heart of this extensive tract of land that legislative

authority has been obtained to construct the North-

West Railway of Canada.

The names of the Municipalities which may be benefited to a greater or less degree by the projected link of communication are subjoined, together with their area. They are divided into two columns to distinguish those which may reasonably be supposed to derive benefit in the first degree from those whose expectations, from their position or other causes, may be thought limited to advantages of the second degree.

MUNICIPALITIES BENEFITED IN THE FIRST DEGREE.

					Area.	
County of	Bruce,	Township	of	Saugeen,	46,434	acres.
"	66	66		Elderslie,	55,775	66
46	"	66		Bruce,	67,176	"
66	66	66		Greenock,	58,686	66
66	66	66		Culross,	58,095	66
"	66	6.6		Arran,	54,833	66
66	66	66		Brant,	70,900	66
66	44	66		Kincardine,	60,556	66
"	66	66		Carrick,	59,525	66
66	Grey,	4.6		Derby,	40,000	66
66	"	66		Sullivan,	74,000	6.6
"	66	66		Bentinck,	76,662	66
66	66	66		Egremont,	76,292	66
"	66	66		Sydenham,	79,000	6.6
66	"	66		Glenelg,	68,969	66
66	66	"		Normanby,	70,000	66
-66	66	66		Proton,	76,800	66
66	66	66		Holland,	77,345	66
66	Wellin	gt'n"		Minto,	74,000	66
66	66	"		Luther,	90,000	66
66	66	66		Maryboro'	56,771	66
66	66	66		Pilkington,	28,000	66
66	44	66		Garrafraxa,	94,000	66
"	66	66		Eramosa,	43,600	"
66	68	66		Guelph,	42,000	66
66	"	66		Nichol,	28,000	"
				,	,	

66	- "	6.6	hip of Peel,	66
66	Perth,	66		66
	eninsula,	66	Amabel,	66
66	,	66	Keppel,	66
66		"	Albemarl,	"
66		"	Eastnor,	66
6.6		"	Lindsay,	"
14		6.6	St. Edmunds,	66

MUNICIPALITIES BENEFITED IN THE SECOND DEGREE.

				Area.	
County of	Bruce,	Township of	Kinloss,	44,583	acres.
"	66	"	Huron,	58,261	66
66	Grey,	6.6	Artemesia,	70,000	66
66	"	"	Melancthon,	76,800	66
"	66	66	Euphrasia,	72,000	66
66	66	"	St. Vincent,		"
66	Welling	gt'n"	Amaranth,		44
66	66	"	Erin,		"
66	Waterle	00, "	Woolwich,		66
66	Huron,	" " "	Turnbury,	34,640	"

To these Municipalities may be added the Town of Guelph and the City of Toronto, both of which would doubtless be very specially benefited.

GEOLOGICAL AND GENERAL FEATURES.

Before noticing the external features of the surface, vegetation and soil, it will be well perhaps to glance at the Geological structure of the country, which in this portion of the province is characterised by very marked outlines. The surface on the eastern shore of Lake Huron is comparatively low and

gradually ascends as we recede eastward, in a vast slope with occasional depressions, which give rise to broad river valleys; the slope terminates in a bold escarpment facing the Georgian Bay and the low land through which the river Nottawasaga flows. In the Townships of Melancthon, Osprey, and Collingwood, the slope exceeds the height of 1000 feet, and its elevated edge from thence northerly through the Townships of Euphrasia, Sydenham, and Keppel. and along the eastern side of the Indian Peninsula to Cabbot's-head, is found to attain elevations gradually diminishing as we proceed northward from 800 to about 300 feet. In this bold escarpment the Hudson River Group, and the Medina Sandstone Series, of the lower Silurian formation, find an outcrop, and over these the Niagara and Clinton groups of the upper Silurian compose its summit. It is distinctly traced as a continuation of the Flamboro' heights through the Townships of Esquesing, Caledon, Mono and Mulmur. Throughout its entire length, from Mulmur to Owen Sound and Cabbot's-head, it presents a rugged outline, being indented by deep narrow bays, forming the valley beds of various streams on the one hand, or arms of the Georgian Bay on the other; of these streams we may enumerate several branches of the Nottawasaga in Mono. Mulmur and Melancthon, the Beaver River in Euphrasia, and the Big-Head River in St. Vincent, until we arrive at Owen Sound, where the indentations assume the character of navigable inlets of the Lake, and as such, Owen Sound, Colpoy's Bay, and Melville Sound, are capacious sheltered anchorages of no small value.

It will, from the above, be evident, that a vertical section drawn across the country from east to west, will give the general appearance of a wedge, having its

point resting on the eastern shore of the main Lake, and the thickest part on the high eastern escarpment above described.

On the upper surface of this wedge, the provincial geologists find under the soil three sections or groups of rocky strata, of nearly equal superficial extent, and constituting the whole range of the upper Silurian formation; the upper or eastern section is known as the Niagara and Clinton groups, and extends from the escarpment to a line not yet precisely defined, but running through the Townships of Garrafraxa, parts of Luther, Arthur, Egremont, Glenelg, and Holland, east of the Owen Sound Road, and from thence striking north-westerly through Derby and Amabel to the coast of Lake Huron, near Chief's Point. West of this line the Gypsiferous Rocks are known to exist for a breadth of from two to three Townships, being a northerly continuation of the same strata, so profitably worked on the Grand River. Although no Gypsum has as yet been found, there are several indications of its presence, and it is quite probable that as soon as the improvements of the locality require the making of excavations, beds of it may be found in many places. This Group constitutes the middle section of the surface of the wedge above alluded to, and on the lower or western section, the Corniferous Limestone, known also Onondaga Salt Group, is found exposed. The division line between the Gypsiferous and the Corniferous Rocks is believed to strike nearly due north, along or about the western sides of Howick, Carrick, and Brant, and from thence north-westerly to the Lake shore below Saugeen.

In the description of the soil, the relation which the agricultural importance of the various Townships bears to the rock groups on which they rest, will be observed, and as a remarkable instance, it may now be noticed, that while the Gypsiferous and Corniferous Rocks underlie the most fertile portion of the whole country, the Niagara and Clinton Groups on the other hand, here constitute a high rugged table land, with many surface rock exposures, and wide areas of land, but poorly adapted for agricultural purposes; so well does this rule hold, that the division line between the Niagara Group and the Gypsiferous Rocks may be taken as an arbitrary dividing line between two tracks of precisely different character, in the one case, bad, in the other good land is the exception. This arbitrary boundary between what may be termed a rough country, and one possessing the opposite character, is found very close on the Owen Sound Road, along the western sides of Egremont, Glenelg, and Holland; to the westward of which, over the valley of the Saugeen, as far as the shores of Lake Huron, and southward across the summit waters of the Maitland and the Grand River, in the general direction of the Elora Road, it would not be possible to find in Canada an extent of country so uniformly occupied on the surface of the foundation rocks by drift clays, without the frequent occurrence of boulders, either of foreign or local origin; narrow strips on the borders of Lake Erie, in the valley of the Thames, and over the fertile plateau of the northern Huron disstrict would furnish analogous features. gular immunity from the presence of boulders, and it may be added, high sand ridges, is a feature of the utmost importance, and will doubtless exhibit astonishing results in a much more rapid agricultural progress than less favoured districts.

The difficulties which might be anticipated in ascending and passing over the high escarpment al-

ready noticed as connecting the Flamboro' Heights with the Blue Mountains of Collingwood, have already been surmounted by the construction of the Grand Trunk Railway to Guelph, and a line from thence north-westerly would meet with few impediments beyond those offered by the gullies worn by the streams which water the country, the ascent and desent from one valley to another being in most cases of a gradual and gentle description. From the Grand Trunk northerly, the ascending grades to the summit level on the southern water shed of the valley of the Saugeen, would be inconsiderable, and from thence northerly to Lake Huron, there would be no difficulty in locating an extremely favourable line.

HARBOURS.

With regard to the Lake Termini of the projected line of railway, it is desirable that something should be said, as the success of the enterprise, as a practicable through route, mainly depends on the suffi-

ciency of the Harbour accommodation.

In order to show the entire absence of natural harbours on the east coast of Lake Huron from Tobermory, near Cape Hurd, at the northerly extremity of the Indian Peninsula, to the St. Clair river, a distance of upwards of 150 miles, and in consequence the great value to be attached to those few points which can be made available, I would beg to refer to the following extracts from the Report of Alexander Murray Esq., Assistant Provincial Geologist, for the year 1848–49, which I am enabled to confirm by personal observation, over a great part of the coast: "At all parts from Cape

Hurd to Riviere au Sable, (north,) the coast, is low rocky, and rugged, and scantily clothed with a dwarfish growth of evergreen trees. It is deeply indented by numerous bays and creeks, and at intervals bound by groups of small, low, and usually barren islands of limestone. As is the case on the southern shores of the Manitoulin, these bays, though frequently capacious, rarely constitute good harbours, the approach to them being extremely dangerous, even for vessels of small draught, owing to the shallows which extend for a long distance out into the Lake, consequent upon the low westerly dip of the calcareous strata composing the promontory.

* * * "Boats can find shelter in many places either in coves or creeks, or among the islands, and at the mouth of the Riviere au Sable (north) there is an excellent boat harbour, but a sand-bar at the entrance effectually prevents the admission of vessels drawing over three feet." * * * "Losing its rocky nature, a decided change takes place in the character of the coast at the Riviere au Sable. (north,) about the mouth of which, and for several miles south, sand-dunes prevail; and farther on, a beach of sand, strewed over in parts with boulders, extends some distance beyond the Saugeen. tween the two rivers, there is no harbour of any description, and with strong northerly or westerly winds, it is next to impossible to effect a landing, in consequence of the barriers of boulders which lie along the shore at considerable distances from the land, the shallowness of the approach, and the heavy surf which rolls in from the Lake. "The mouth of the Saugeen affords a good harbour for boats and small craft, but as is the case with all the rivers of the coast, a bar is formed across its

entrance, over which a heavy sea breaks when the

wind is at all strong from any point between southwest and north; its entrance, under such circumstances, is difficult, and attended with considerable danger." * * * "With the exception of Goderich Harbour, at the mouth of the Maitland River, and the basin at the exit of Riviere au Sable, (south,) there is not a single place of security for any description of vessel between the River Saugeen and the St. Clair. Small boats, I was informed. could enter Big Pine Brook, but no craft of larger size. There are no islands, no coves, no accessible brooks or streams, and with strong winds from the south, west, or north, it is difficult, if not impossible, to land boats with safety. At many points the water is very shallow, and large boulders often lie at a long distance out in the Lake, while a very heavy sea breaks every where along the coast."

If, on the other hand, we turn to the eastern side of the Indian Peninsula, we shall find ample shelter in the various deep inlets already mentioned in describing the general features of the country, most of which possess many of the requisites of good, safe and commodious natural harbours. Of these inlets Owen Sound is the nearest, and perhaps the most available, and its character is so well and so correctly described in the following extracts, which I have been permitted to make from a Report furnished to the Railway Commissioners in the spring of 1854, by Fred. Cumberland, Esq, then Chief Engineer of the Northern Railway, that I cannot do

better than avail myself of it:

"Owen Sound is so well known, and its outline and position so well defined by the charts of Captain Bayfield and others, that it seems unnecessary to enter very minutely into a description of its general character. Situated on the west side of the Georgian Bay, the Sound recedes thence south-westerly in depth about 18 miles, being nine miles wide at its entrance, (with 60 fathoms water,) gradually diminishing in width and depth of water until at the head it receives the Garrafraxa and Pottawatomie rivers, streams of considerable commercial value, but

unnavigable beyond the Town of Sydenham.

"The lands on both sides of the Sound are high and precipitous, yet at a point which I shall hereafter denote, there is an opportunity for railway approach without difficulty. As will be gleaned from the foregoing, the Sound thus lies open to winds ranging from north to north-east, and although undoubtedly heavy seas may, when it is between these points, be expected in the Sound, yet their effect is gradually lost as they advance upwards towards the head of that confined and sheltered water.

"By the projection of a pier, say 1200 feet long, from the shore, in shoal water, to 10, 15, and 20 feet water, shelter would be given from those winds and seas from the northward, to which alone the Sound is subjected, and this shelter might be extended by multiplying the piers to the southward, and forming slips or docks ad libitum as the trade might demand. At this point (which is about one mile northerly from the present pier) the width of the Sound (water line to water line) is very nearly a mile, whilst the width of 20 feet water is about five-eighths of a mile, so that no difficulty could occur in rounding up or coming to the piers, either for steam vessels or sailing craft. Beyond the 20 feet water line the depth is precipitously increased to 35, 45 and 60 feet, to 20 fathoms in the centre, forming, so far as soundings instruct us, submerged terraces similar to those which, by perpendicular

escarpment of limestone rock, surround and enclose the site of the town of Sydenham and the margin of the Sound.

"In the proposition above made for piers and slips, dredging on the south side is included, as the sudden dip of the water renders such a prolongation of the piers impossible as would suffice for the sheltering of a serviceable area of the requisite soundings. On the whole, there can be no doubt as to the facilities afforded by this locality for the connection of railway and water traffic. The only disadvantages to which the Sound is subject, may be briefly stated: 1st. Being land-locked, with winds ranging from north to north-east. And 2d. The terraced formation of its bottom, which, without giving sufficient area of medium depth, dips to an excess involving either large expenditure in construction, or (as a more economical expedient) a resource in dredging."

Assuming that Owen Sound possesses in abundance the necessary requisites for harbour accommodations, it will be borne in mind that this port is on the south-eastern coast of the Georgian Bay, and scarcely in the direct line to points commanding Lakes Michigan and Superior, and it must be evident that the absence of an outlet on the western shore of the peninsula, would greatly lessen the value of your enterprise as a successful through route. If it were possible then to construct an artificial harbour of sufficient capacity and safety on the Main Lake, it would, without doubt, be of the utmost consequence: in conjunction with the port of Owen Sound, the Railway would have two outlets on the waters of Lake Huron, so situated in relation to each other and the intervening peninsula, that during very stormy weather vessels would always have a choice. If the wind happened to blow from either easterly or westerly directions, one or other of the harbours would be in shelter, and have smooth water approaches. During ordinary weather the adoption of the western port would considerably simplify the navigation of the Lake, seeing that vessels would have only a continuous straight course from the Straits of Mackinaw and St. Mary to their destination and save a distance of 50 miles over the other route by Isle of Coves, Cabot's Head, and the Georgian Bay to Owen Sound.

I am fortunately in a position to show how and where an artificial harbour can be constructed on the main Lake of a most capacious and unexceptional character, at a very considerable cost, it is true, but without any unusual engineering difficulties; and if at any point on a coast so destitute of shelter for 150 miles, it be possible to provide such a necessary convenience to a part of the province so rapidly growing into importance, it would doubtless, in connection with railway enterprise, warrant almost any ordinary expenditure. Such a place is to be found at Saugeen, the other point named in your Charter.

The River Saugeen, where it empties into Lake Huron, at the town of the same name, forms the outlet of a very extensive country, exceeding in area one million acres. Nearly opposite the mouth of the river and about a mile from the main-land, lies a a long, low strip of land called Chantry Island. Between this island and the main-land there is ample depth of water for any lake craft; the island extends under water a considerable distance, both northerly and southerly, in a direction generally parallel to the shore, forming an extensive natural breakwater, on which to construct works of farther shelter to piers run out from the land. In a word, all the elements exist for the formation of the most unobjectionable harbour on any of the great lakes; not only would it enjoy the advantages of safety and abundant capacity, but it would possess the additional recommendation of leeward and windward approaches, with ample offing in either case.

With regard to Saugeen, I am also happy to avail myself of Mr. Cumberland's description and confirm-

atory opinion of its capabilities:

"Of this also, a previous instrumental survey and full soundings had been made, and the chart is herewith submitted. It is situate about 60 miles north of Goderich, with Saginaw Bay, W. S. W. 120 miles, and the straits of Mackinaw, N. W. by W. 180 miles. The Town of Saugeen is situate on the south bank of the river of that name, with Chantry Island lying two-thirds of a mile lakeward. The river is about 200 feet wide at the mouth, with a bar composed of shifting sand and gravel, with irregular depth of water over, of from six to eight feet, and nine feet water inside for about 450 feet up-stream, whence it shoals to three and four feet. the bar, the ten feet water line is found at a distance of 800 feet; but as to any disadvantages connected with the river itself, must be added the want of shelter from the Lake, (Chantry Island lying to the south of it,) it cannot be considered as available for harbour service.

"Turning to Chantry Island, which is 2000 feet long, parallel to the shore, from which it is distant about two-thirds of a mile, with reefs to the north and south, we find a good base for sheltered anchorage, extending in the whole to a length of one and a half miles, and covering a large area of water of an average depth of sixteen feet.

"The heaviest seas impinging upon the coast are from the N. W. with a fetch of 180 miles, from the

S. E. of 80 miles, and from due west with a range of 100 miles. The area before mentioned is protected by the Island, and therefore the works of shelter must be projected from its northern and southern limits as proposed upon the chart. These works would consist of four piers, two as before mentioned, and two projected from the land side, and a basin would thus be formed, which for facility of approach, shelter, anchorage, and depth of water, would form a harbour of great value, and second to none upon the upper American waters. The necessary expenditure would undoubtedly be large, but the facilities which such a harbour in connection with Railway service, would offer to the trade of the West, warrant its contemplation as a necessary and remunerative work."

It is evident then, that you have fortunately a choice of two excellent harbours, Owen Sound and Saugeen, the one natural, the other artificial, and having personally made a thorough instrumental survey of both, I am prepared to speak with confidence of their capabilities; but as it is of the very greatest consequence to have the fullest reliable information in a matter of this kind, I am happy to be able to add the opinion of Captain Weatherly, a gentleman of long tried and well known nautical experience.

"Owen Sound, by Captain Bayfield's chart, extends in depth about 18 miles, being 9 miles in width at its entrance, and from the entire absence of any important shoals, and the great depth of water in its centre, the harbour is now much exposed to all winds from a north or north-easterly direction, but to these only; and to make a secure or perfectly smooth water basin, it would be necessary to run out a pier of 1600 feet in length on the south-east

side of the Bay, about one mile from the present wharf, which position I consider best, as giving enough room for vessels turning round or backing out; 700 feet of this proposed pier would be in water from 10 to 36 feet, the remainder shoaling gradually from 10 feet to the land. Should the expense of constructing this pier be too great, and the nature of the bottom admit of excavation, slips might be dredged out in shallow water, affording shelter to a considerable extent, and might be increased in number as the exigencies of the trade required. ers at all times could leave and enter this Port; but sailing vessels, from the depth of the Sound, would have considerable difficulty during adverse winds; it is also open to the same objection as Collingwood, being on the wrong side of the Indian Peninsula, for the trade of the northern and western Lakes; yet the hitherto existing dangers in navigating the Georgian Bay, will be greatly diminished on the completion of those Light-houses about to be erected by the Government at various well selected points.

"Saugeen.—This River from its contracted area of deep water, its unsheltered entrance, its being subject to freshets, and the shifting bar at its mouth, is incapable of being made a safe Harbour. But Chantry Island, a little to the south of its entrance, about 2000 feet in length, and with reefs running parallel to the shore from both north and south ends, to the total extent of one mile and a half, forms a natural Breakwater, the only one between St. Clair and Cape Hurd. Between this Island and the Main, is embraced a large area of water, capable of being made the finest Harbour on the Lakes, accessible at all times by one or other of its entrances, to vessels

whether steaming or sailing.

"I should beg to suggest, that break-waters be

erected on the aforementioned reefs to the north and south of the Island to the extent of about 1400 feet, thus defending from the Lake a larger portion of the main land, and to complete the security, piers run off from the main shore, the north one 2700 feet in length, from a little south of the River's entrance: the southern one about 3400 feet long from opposite the south end of the Island; which would leave two entrances of about 1000 feet wide, and form a Harbour, which, for facility of entrance, departure, security, or depth, would be unequalled by any Port in the American Inland waters.

"There are other arguments in favor of constructing a Harbour at this place, besides those connected with railway enterprise, namely, as a *refuge* in bad weather, there being nothing of the kind on

this coast of Lake Huron."

Although I think it searcely necessary to adduce farther proof of the importance and practicablity of Saugeen Harbour, it may be added, that the Government with wise discrimination and foresight, has commenced its construction on a large and proper scale; and with this object ultimately in view, the sum of £7000 has been judiciously expended during the past season in extending the Breakwater.

SAUGEEN VALLEY.

I am now prepared to show, from personal inspection of a large portion of this extensive region, that it embraces as fertile, salubrious, and attractive Townships as are to be found in any other part of Canada. And in connection with the description of this little known expanse of country, I shall beg your attention to a few remarks on its settlement, which were suggested during a recent tour through the Valley of the Saugeen River, and over the dividing ridges which separate its waters from those passing into Lake Huron by the Beaver, Big-head, and Maitland Rivers, and into Lake Erie by the Irvin and Grand Rivers.—[These remarks

will be found in Appendix A.]

The Saugeen River takes its rise in the elevated plateau constituting the seven Townships of Holland, Glenelg, Artemesia, Osprey, Proton, Egremont and Melancthon. The same plateau gives rise to the Beaver and Big-head Rivers flowing northward into Nottawasaga Bay, and to the Irvin and other tributaries of the Grand River, which pursue a contrary course and finally discharge into Lake Erie. A few miles west of Durham in the Townships of Bentinck, the Saugeen proper is joined by a tributary from Glenelg, called the Rocky Saugeen, and near the dividing lines of the Counties of Grey and Bruce and the Townships of Carrick and Brant, it receives considerable accessions to its volume from a tributary named the South Branch of the Saugeen, draining the Townships of Normanby and Egremont, and portions of Minto, Arthur, Proton, and Luther. The course of the Saugeen lies for a few miles nearly due-west in Brant, it then bends south to the northerly town-line of Carrick, and again north to the village of Walkerton; here it crosses the Durham road and pursues a winding northerly direction, until it receives an additional tributary, the Tees-water, in Elderslie, not far from the easterly corner of the Township of Bruce. The Tees-water drains parts of the Townships of Kinloss and Carrick, and the whole of Culross and Greenock. From Bentinck, Brant, Sullivan, Elderslie, and Arran, the

Saugeen receives a very considerable number of small streams, and continuing in a general direction northwards to the village of its own name, at the foot of the Indian Peninsula it finally flows into Lake Huron. The total length of this river, including the Tees-water, the Rocky Saugeen, and the South Branch, is not less than 180 miles; the Township wholly drained by the main river or its affluents, are Elderslie, Brant, Bentinck, Glenelg, Egremont, Normanby, Carrick, Culross, and Greenock, nine Townships in all, and containing an area of 595,000 acres. The Townships partially drained by the Saugeen or its affluents, are Arran, Sullivan, Holland, Euphrasia, Artemesia, Osprey, Proton, Luther, Arthur, Minto, Howick, Turnbury, Kinloss, Bruce, and Saugeen, comprising an area of about 350,000 acres, and giving a total area of about 945,000 acres, or nearly 1500 square miles within the water-shed of this river. Of the Townships above-named as being partially drained by the Saugeen, we find the remaining portions of Bruce. Kinloss, Turnbury, Howick, and Minto, give rise to short and unimportant streams falling directly into Lake Huron at numerous points along the coast, or by the Maitland at Goderich; on the other hand, Sullivan and Arran are partially drained by the Sable, (north) which enters Lake Huron in the new Townships of Amabel; portions of Holland, Euphrasia, Artemesia, and Osprey, contribute to the Georgian Bay through the Big-head, Beaver, Pretty, and Mad Rivers, while parts of Proton, Luther, and Arthur are drained by the summit waters of the

^{*}There are valuable falls near the mouth of the Sable (north), where it is contemplated erecting mills and making its entrance available for Harbour purposes.

Grand River, which flows southerly into Lake Erie. The physical features of the Valley of Saugeen, are well marked and somewhat peculiar; west of the dividing line between Grey and Bruce, the main River flows in a deep broad bed, with hilly banks, rising to a gently undulating plateau on either side, this plateau being cut here and there with various branch streams, and sloping gently west and southwest to the Townships on the shore of Lake Huron, and in the contrary direction ascending to the broken country along the eastern water-In the Townships partially drained by the Saugeen, particularly those to the south of the valley, the surface of the country consists of a succession of low narrow ridges with wide plateau flats between each; the ridges increase in relative elevation as they recede from the valley until the summit is attained, they then descend by similar but somewhat less easy steps from plateau to plateau, until the vallies of the Maitland on the one hand, and of the Grand River on the other are attained. The nature of the water-shed east of the Saugeen valley, differs in some important particulars; the character of the country is rocky, the surface in many parts is abrupt, stony, and broken. The Townships which send part of their drainage to the Georgian Bay, exhibit even at the surface, numerous rock exposures. term, Rocky Saugeen, applies well to the general features of the country, near the road leading from Owen Sound to Durham, when compared with the

In describing more in detail the physical features of the Saugeen Valley, I shall start at the outlet of the river and proceed against the general direction of the stream, making here and there a traverse of a few miles into the surrounding country, and

rich plateau valley of the main River.

up the vallies of a few of its more important tri-

butary creeks.

At the immediate mouth of the river, the soil is sandy and poor, as is generally found skirting the coast of Lake Huron, but within a mile or so it changes to drift clay, with here and there low sand ridges, which diminish in frequency until they disappear altogether at the distance of three or four miles from the Lake. The banks of the river at the bridge about five miles inland from its mouth, have been deeply excavated for the purpose of forming approaches to that substantial work, and they expose a great depth of the rich drift clay. Following the Elora road from the bridge to Paisley, we pass through heavily timbered clay land, supporting beach, maple, elm, and birch, in the greatest abundance and luxuriance; nearly half way between these two points, the very broad valley of a creek rising in Sullivan is traversed, the depth to which this creek had cut a ravine through the drift clay, showed the great thickness of that deposit, which did not appear to be less than from 90 to 120 feet. Boulders were almost entirely absent, a few of small dimensions in the bed of the creek, showed that they were not generally distributed in the clay. Here as well as at very many other parts of the valley, the fertility of the virgin soil was well shown, by abundant crops of turnips of very large size, notwithstanding the unusually dry season. Near Paisley a road strikes off to the village of Lockerby. a new settlement situated on the north branch of the Saugeen, which takes its rise in Holland, and flows along the southerly end of Sullivan and Elderslie to its intersection with the main River. Lockerby offers advantageous positions for mills, with the certain prospect of abundance of material to sustain them, as the improvement of the fertile country around progresses. Paisley is the site of a town at the confluence of the Tees-water with the main Saugeen; here as well as at Lockerby mills are erected, there are also several stores and other build-The Saugeen at this point is an imposing river, with high abrupt banks on one side, and broad rich flats rising to similar banks on the other. Indeed, high banks and wide spreading flats alternately on either side of the river, is a common feature. timber covering the flats is of enormous growth; Elm trees may frequently be seen from 60 to 70 feet high, without a branch, and three feet in diameter 10 feet from the ground. Black Birch of unusual size, and black cherry are frequently to be met with three feet in diameter, and they generally preserve their thick-

ness without branches to a great height.

The Tees-water bears the very inappropriate name of Mud River, and is also called the west branch of the Saugeen; it runs through Greenock and Culross, but derives various tributaries from Kinloss and Carrick, which take their rise in small lakes, swamps, and beaver meadows. Between Paisley and the village of Walkerton, on the Durham road, indeed, between the Saugeen bridge, near the mouth of the river and the latter village, a distance of about 30 miles, it would be difficult to find ten acres of unavailable land, on the travelled road; here and there at wide intervals, a few patches of wet or of lightish soil may be discovered, but there are no swamps, properly speaking, unless one or two swales bearing a mixture of cedar and hardwood timber can be called such, and it is quite probable that most farmers would prefer having a portion of this kind of timbered land for future fencing purposes. The country is very heavily timbered with Beach and Maple

of the largest growth, Buttonwood, Black Birch, and magnificent Elms; very little Hemlock, Pine, or any resinous trees were observed, indeed, the forest truly deserves the name of heavy hardwood land. The River and streams generally flow over gravelly beds with here and there out-crops of limestone, excellent for building purposes; a considerable quantity lay exposed on the road side about the middle of Brant in the rough form and converted into lime. It was procured on the river bank near by, for the erection of a stone tavern, and according to the information obtained, it is not only found without difficulty on the main River, but also at many points along its branches; we were told of a remarkable exposure along the banks of the Tees-water, about 12 miles south of Paisley, at a place called Pinckerton's The stone is of a light warm grey colour, and is detached with great ease from its bed, in layers varying from six to sixteen inches in thickness, with a good square fracture, admirably adapted for building good common work, as is well exhibited in several comfortable dwellings through various parts of the country.

The Saugeen at Walkerton, is a river of no common beauty; on the one side a uniform hill bank, (it cannot be called a cliff bank,) rises with a rapid slope to the height of about 200 feet, and beneath is a wide rich flat through which the clear waters of the River flow over its light gravelly bed. The opposite bank is more varied in outline, but rises to a similar height, from which the great plateau of heavy and rich drift clay stretches away for many miles in long easy undulations, sharpened at intervals by the vallies of the numerous streams which water the Townships. The great line of road leading easterly from Durham to Greenock, Huron and

Kincardine, crosses the Saugeen at this village; near the intersection, the river has been dammed, and affords a superabundance of water-power; mills are here erected, taverns, churches, and dwellings are springing up around, and through the enterprise and energy of its founder, the village is fast assuming Taking Walkerton as a centre, and importance. making radiating traverses northerly through Brant to Elderslie, westerly to Greenock and Kincardine, southerly and easterly through Carrick, Normanby, and Bentinck, it would become a problem of some difficulty to find a tract of land equal in every respect to that comprehended within the limits of these Townships. The road leading directly south from Walkerton, traverses a country of astonishing luxuriance of vegetation; it is quite impossible to form a correct idea of the character of the bush and of the nature of the soil in this neighbourhood, without a personal inspection; here you see Elm trees, four feet diameter near the ground, rising to an altitude of 70 feet without a branch, and bearing their thickness well to that height. Black Birch and Cherry, with their singular barks, growing here in great abundance, and with trunks of unusual dimensions to an altitude of 60 or 70 feet, are by no means uncom-Beech too, of far more than ordinary size, arrests attention, and the traveller is struck with some degree of surprise, even in our Canadian woods, at the aspect presented by the forest in this part of the Saugeen valley. Nothing in the same latitude can exceed the magnificence of the timber or the apparent strength and richness of the soil. The valley of the Otter Creek, which enters the Saugeen about three miles south of Walkerton, displays the largest growth of Elm, Birch, and Beech that I have seen in Canada, and where the land is underbrushed,

as a preliminary process for clearing, the noble trunks of the trees appear in their true proportions; indeed, it is urged by many of the settlers in this part of the country, that the land is too heavily timbered, forgetting the fact that the abundance and dimensions of vegetable growth they deplore is the surest indication of the enduring fertility of the soil and the adaptation of climate to the purposes of their own toil and industry. In some parts of the Townships of Brant and Carrick, a little Pine and Hemlock may be found either in swales or clothing narrow low sand and gravel ridges, which occasionally exist in the neighbourhood of the water courses. In Elderslie, the Township lying to the north of Brant, and only partially watered by the Saugeen, there are some considerable swamps, forming the sources of the several small streams which join the main river, or pass over the northern water-shed and flow into the Sable. Greenock, immediately west of Brant, resembles it in the richness of its soil, but is not so well drained, and possesses an extensive swamp about the centre of the Township; this swamp grows abundance of Pine, and in a country where hardwood land predominates, will soon be of incalculable value for building and fencing purposes, already the absence of Pine is felt in many places. In Carrick, the Township south of Brant, and Culross and Kinloss, south of Greenock, several dry swamps occur, but of no great extent. and in most cases available for farming purposes. The timber in these elevated swamps, consists of Cedar, Tamarack, Birch, Beech, a little Hemlock and Pine, with here and there Balsam and Spruce. In Howick and Minto, Townships which are more elevated and constitute the southern water-shed of the Valley, swamps are more numerous; they are found

in long flats, between low ridges, which seem to divide the waters of the Saugeen from those flowing in a southerly direction. It is a fact well worthy of notice, that the elevated townships in which these dividing ridges are found, do not, with the exception perhaps of Proton and Luther, contain any considerable extent of unavailable swamps. They may in general be classed as dry swamps, in which hardwood is associated with Black Ash, Tamarack and Cedar. The passage from the Saugeen Valley to that of the Grand River is remarkably gradual, and would scarcely be perceived by a traveller in the bush without the assistance of the long vistas afforded by the new made Elora road, which being cut out in a direct line, enables the low ridges with their broad but shallow intervening vallies to be recognized by the unassisted eye; these broad vallies are easily distinguished rising gradually step by step as you recede from the main River, and as falling similarly in the opposite direction after the water-shed is passed.

SETTLERS AND CONDITION OF SETTLE-MENT.

The class of settlers already in occupation of the Saugeen Valley, consists for the most part of farmers who have had many years experience in older townships, and who were induced, since the time when the country was surveyed and offered for sale about four or five years ago by the Government, to purchase tracts of land for themselves or as the future homesteads of their children. In many cases these farmers are, for the second time, converting by their

labours the rude forest into ploughed fields. They were perhaps the early settlers of older townships, where after years of toil, they enjoyed the possession of good cleared farms, but with a larger family of sons growing up around them, and foreseeing the difficulty of providing for the individual wants of each, where every acre was occupied and high in value, they determined to move into the recently opened country and secure a sufficiency of area—the proceeds of the sale of their old homesteads enabling them to pay for the lands and provide for their necessities during the first two or three years until crops be raised.

Nearly all the townships in the Saugeen Valley have been sold by the Government under actual settlement regulations, by which actual occupation or cultivation of the soil is implied; with these conditions of sale carried out so far as practicable in accordance with their general spirit and intention, very beneficial results have generally been produced. It is a mode of settlement objected to for some reasons, but I confess it appears fraught with many benefits—it is a guarantee to the pioneers on their first entering the bush that before long they will have neighbours—that their neighbours will clear the land and have an equally direct interest in the improvement of the settlement as themselves; and it is natural to suppose that they must all watch with greater concern the progress of the township in which they live and in which their fortunes lie, than if the owners of the soil were at a distance, the holders of extensive tracks simply as an investment and without the slightest intention of improving or occupying the land, and whose attention is perhaps rarely called to the local wants of the country or to such works of public utility as would promote its interest. If absenteeism has produced evil results or rather negative results in many parts of Canada, it has not, and cannot do so to any considerable extent in the valley of the Saugeen. No man could originally hold more than a limited number of acres; nearly every lot is now occupied either by individuals or families, and a certain area is being brought under cultivation annually. In fact the objects for which the settlement regulations were ordered by the Government have now been fully realized, they have resulted in peopling the country with an industrious class of practical settlers, and who value so highly the richness of the soil they occupy, that it would now be difficult to persuade them to leave for other parts, and utterly impossible to devise any scheme that could long hinder the agricultural progress of this section.

In proof that the country is settled and improving with greater rapidity than perhaps any other portion of Canada ever did before, it may be stated that on some of the lines of roads which I travelled scarcely four years ago and found only rough tracks hewn through the woods, with the first acres of the earliest clearings appearing at long dreary intervals—these roads are now ditched, turnpiked and drained—and the forest has disappeared to such a degree in some parts, that you may now travel along these roads for three or four miles at a time without seeing the continuous clearings and large arable fields on both sides interrupted by a single piece of bush.— The dwellings and barns are generally good and comfortable, and here and there, but not so frequently as there should be, young orchards are planted out.

There is a feature in the conditions of settlement which is telling well for the advancement of this part of Canada—one-fourth of the original purchase

money of the land is devoted by the Government as it is collected to the construction of roads in the townships subject to the settlement regulations, and the effect of this wise provision has been to open up fertile tracts one after another in the space of a few years which under other circumstances would have long lain uncleared, isolated and unprofitable; and it will continue to produce like beneficial results in improving from time to time the ordinary roads of the country, and thus greatly lessen the usual statute labour tax: a total sum exceeding Seventy-Five Thousand Pounds being provided for this purpose alone in the Country of Bruce.

CLIMATE.

If geographical position is a most important element in the success of the Commerce of a country, it has equally as much influence on the growth and prosperity of the Agriculture. An inspection of the map will show that the country just described, although farther north than that part of Canada south of a line drawn from Toronto to Goderich and which would embrace perhaps the richest of the oldest settled portions of the Province, it is nevertheless nearly surrounded by large sheets of water open throughout the year. Lake Huron immediately on the west, the Georgian Bay immediately on the north and north-east, Lakes Ontario and Erie, at some distance to the south-east and south. The ameliorating influences of these lakes, more especially the northern ones, must necessarily be felt to a marked degree in the Valley of the Saugeen. It is in the same latitude as Holland Landing, Rice Lake, Belville, and Kingston, and although the depth of snow in winter is at present perhaps greater than at either of the latter points, yet none of them have so large bodies of open water spreading out to the north, as is the case with the Sangeen country, by the interposition of which the northern winds must in some degree be elevated in temperature and the intensity of the winter's frost somewhat subdued.

In estimating from isolated and limited observation the capabilities of climate, we must have recourse to seemingly insignificant testimony, but it often happens that apparently feeble proofs when rightly appreciated will go far to establish correct opinions. It may be urged by many that the growth of the most luxuriant forests of Beech, Maple, Birch, and Elm, although indicating a highly fertile soil, are vet compatible with a most rigorous climate, and such is very probably the case, hence I take occasion to notice the ripening of tomatoes at Walkerton earlier than at Toronto, the ripening of melons near the Town of Saugeen at a season when they are searcely to be found in the market here, and the fading and falling of the leaf in that section of the country certainly not preceding the same annual phenomenon at Toronto by more than two or three days.

The evidence of position, fertility of soil and adaptation of climate to the purposes of agriculture over many hundred thousand acres of the country I have been describing, is not only shown by the luxuriance of the vegetation which so thickly covers the soil, but it finds a ready and substantial proof in the yield of grain and root crops wherever the experiment has been fairly tested. In Brant, on the authority of the Reeve, 51 bushels of wheat has been raised to the acre, weighing 63 lbs. to the bushel.

from a field of 11 acres in which the stumps of the trees previously occupying the ground were all still standing. Indian corn, a crop easily affected by spring and fall frosts can be cultivated in great perfection, as much as $62\frac{1}{2}$ bushels having been taken off a single acre in the Township of Greenock.* The turnip grows with the utmost luxuriance on the new soil, and appears to be very generally cultivated throughout the whole County of Bruce-a feature in the husbandry of this district which would appear to tell well for the agricultural knowledge of the settlers, indicating probably a familiarity with "rotation of crop:" a practice so early learned by every settler will not likely be abandoned when the necessity for growing such large quantities of this valuable root as a substitute for hav, becomes lessened, and if persisted in will be a safe precaution against general deterioration in fertility of soil, and perhaps a preventative for diseases of the wheat which already threaten to blight many of the most prosperous parts of Canada West.

With regard to the salubrity of the climate it may be added, that the general healthy appearance of the inhabitants cannot but be remarked by travellers who have had opportunities of visiting recently made settlements in other parts of the Province—here, I saw no indications of fever and ague, and notwithstanding very many inquiries, I did not learn of a single case north of the country drained by the Grand River. The singular immunity from this debilitating disease, too commonly the accompaniment of new settlements, is attributed to the absence of much swamp land, the pure water of the streams with the rocky and gravelly nature of

^{*}Lynch's Prize Essay: Agricultural Transactions, p. 647.

their beds. Whatever may be the cause, the freedom from ague cannot be too highly appreciated, and this favourable circumstance alone must tend, in no small degree, to elevate the character of the country and promote its rapid improvement.

LOCAL BENEFITS.

The direct and indirect advantages derived from the construction of Railways through any country, and more especially through a new country, are so many and so diversified, that to enumerate them would take more space than I feel at liberty to occupy. I shall therefore content myself with a reference to those most immediate and apparent. The first construction of a Railway implies the expenditure of a large amount of capital, and from whatever source the capital may come, a great proportion thereof must of necessity be paid out and circulated through the country along the line of work. In a district recently settled, such as the valley of the Saugeen, the inhabitants, if they are not poor, yet, having purchased the land and subsisted for several years before their farms could produce a surplus, must be left generally without a superabundance of wealth; nearly the whole original cost of the Railway, except the iron and rolling stock, is expended in the immediate locality, and consequently a sum exceeding £30,000 or perhaps £40,000 must be spent in each ten mile section. This, I think, will be acknowledged by the settlers as a great boon, and all must feel its effects less or more. Such a sum expended in any one of the Townships on

labour, provisions and various kinds of material, and circulating from man to man, must, I think, be allowed as an immediate and substantial benefit.

Up to this time the surplus produce of the first farmers has been required by the more recent settlers until the farms of the latter yielded sufficient for their wants, hence the market has hitherto been within themselves; but the home market is but a temporary one, and will soon be, if it is not already, terminated. Every year as the cultivated areas become lengthened and widened so also will their produce continually increase, and only by a journey of two or three days at one season of the year, and that too when prices are generally at the minimum, will the farmer be able to dispose of it. The Railway in operation will create a market throughout its length at all seasons of the year, and it will place those Townships, which are now isolated so to speak, on nearly the same footing as those along the frontier.

Perhaps the best measure of the value of a Railway to a new country is the sudden increase which its construction gives to property of all kinds within its influence. This is always found to be the case wherever Railways have been made in Canada, and to a marvellous extent when the country through which they pass had been previously at a distance from a market. I have taken some trouble to obtain authentic and proper data, by which to predicate the probable increase in the value of land along various sections of the country through which the North-West Railway may run, and I have obtained also the estimation in which works of the same kind are held by parties who have experienced their uses and advantages. Selecting the Counties of York and Simcoe, now intersected by the Northern Railway from Toronto to Collingwood, as having been, prior to the construction of that work, in a similar position to the Counties north of Guelph, I addressed letters to various parties residing between Toronto and Collingwood, soliciting information on the subject. answers I have much pleasure in submitting; they are most satisfactory and conclusive, and coming as they do from parties of well known judgment and discernment, who have had the very best opportunities of forming their opinions from observation and experience, are, I think, reliable beyond dispute and of very considerable value. To these letters (see Appendix) I would beg to refer, as nothing can show more fully the extent to which the inhabitants have felt the benefit of the Railway, nor can better arguments be found in favour of Municipalities aiding works of this kind. If I mistake not, the County of Simcoe was the first Municipality in the Province to extend its credit to any considerable amount towards the establishment of public works, and by boldly voting a subscription of £50,000, it secured for itself the Northern Railway; by the actual building of which a sum in cash equal to four times the above subscription was expended within the limits of the County, and such is now its general prosperity that the Warden, in his last address, declares it as his belief that "two or three years hence, the single Township of Nottawasaga, from its greatly increased assessment, will itself pay the interest and the sum necessary for the redemption of the Fifty Thousand Pounds of Stock the County holds in the Northern Railway;" and here let it be borne in mind that the above named Township was, before the building of the Railway, one of the most backward, isolated and least valuable, in that section of the country.

In showing the extent to which property in the Counties of York and Simcoe has been benefitted

by the construction of the Northern Railway, and without being invidious, I will select from the letters I have been favoured with, those of Joseph Hartman, Esq., M. P. P. for North York,* and of George Lount, Esq., Registrar of the County of Simcoe,† seeing that they contain a greater amount of statistical information than any of the others—and to these letters I would beg to direct special attention.

Mr. Hartman gives proof of the past and present value of lands in the County of York, where he resides, from actual sales coming within his knowledge; and Mr. Lount, from his official position, has perhaps had better opportunities than most people in Simcoe of knowing the value of lands in that County.

On referring to Mr. Hartman's communication it will be found that he shows conclusively that the proportion of the average increased value of land due to the construction of the Railway in Townships about 30 and 40 miles north of Toronto, is as follows:—

From 1 to 5 miles on each side of the Railway £5 per acre.

" 5 to 10 " " " " " 4 10 "

" 10 to 15 " " " " " 3 5 "

And from Mr. Lount's statement it will be seen, that the average increase due to the Railway in ten Townships in the County of Simcoe, ranging from 1 to 15 miles distant, is upwards of £6 10 per acre; \ddagger and it will be observed that both gentlemen have allowed a large margin for the increase in value which may be traced to general causes.

^{*}Appendix B. †Ibid.

[†]The correctness of these valuations is still further confirmed by the letters of William Armson, Esq., Ex-Warden of the County of Simcoe; the Honourable W. B. Robinson, M. P. P. for South Simcoe; Angus Morrison, Esq., M. M. P. for North Simcoe, &c. These letters will also be found in Appendix, B

The Townships to which Mr. Hartman refers, have been long settled and the farms had reached a high figure (partly through the Macadamizing of Yonge Street) before the Railway was commenced, and that the increase is less than in the localities to which Mr. Lount has referred, is simply a proof that lands, previously far inland and to a great extent wild, are benefitted to a greater degree than those nearer a mar-If, then, we find, according to the very best authority obtained, that the Northern Railway has raised the value of property throughout the Counties it intersects, as above stated, may we not with all safety predicate, that the construction of the work you have in hand will produce a similar result, and to a like extent? I think with all reason we may, for it must be remembered that the valley of the Saugeen is now far less favoured with a facile outlet to market than the Counties of York and Simcoe were five or six years ago. In the first place the roads, where they do exist, north of Elora and Fergus, are of the most primitive description and all but impassable for a large portion of the year—while in the second case, Yonge Street, a first class Macadamized Road, lead directly north from the City of Toronto through the County of York, before the Railway was thought of, and Lake Simcoe, navigated by two Steamboats and various Schooners, extended into the heart of the other County to within 25 or 30 miles of the Georgian There is another good reason why a greater increase may be predicated along the probable route of the North-West Railway, than in the County last The soil is found to be very much superior to that of the County of Simcoe, and so generally of an excellent quality, that a very inconsiderable portion of the surface will remain permanently as waste land, while in Simcoe it is well known a large extent of area is unfit for profitable cultivation. Knowing this to be the case, we might justly allow a considerable advance over the increase given for Simcoe; but as it is safer and more satisfactory to under-estimate, I will take the lowest statement above given, in making the following calculations of the increased value of land opposite each lineal mile of Railway constructed through the valley of the Saugeen:—

Producing in all an increase in the value of property adjacent to each lineal mile of Railway of upwards of £80,000, an amount so startling, that the correctness of the calculation may well be doubted—half this amount of increase would be enormous, almost fabulous, it would be four or five times greater than the entire cost of the work, with complete equipment—and yet no other conclusion than that above given can follow from the premises, and the correctness of these, on the testimony of the gentlemen who have favoured me with their information, cannot, I think, be brought in question.

It is quite unnecessary for me to occupy your attention farther—although I have referred to two kinds of local benefits only; sufficient, I trust, has been advanced, to show the expediency of the Townships themselves taking an earnest hold of the project. If the building of the Road will be the means of circulating throughout its route, an amount of capital equal to half its entire cost; if it will at once quadruple the actual value of each acre of land, then,

even if it should do no more, I think the owners and occupiers of the soil, who in fact are more deeply interested than anybody else, would be perfectly justified in making every possible exertion, and in making no ordinary sacrifices, to secure the construction of this important work. I would even go a step farther, and declare it as my opinion, that to do otherwise, to treat the matter with indifference, would be a display of negligence to their own and their children's interests, unworthy of Canadian farmers.

In confirmation of what I have endeavoured to illustrate, and to clear it as much as possible of what may be considered by some people as individual speculative reasoning, I refer to an article just published in the Canadian Almanae, portions of which will be found in the Appendix. The facts established in those extracts will apply with greater force to the North-West Railway, inasmuch as it will traverse a country of far higher fertility, and at present much less accessible than that referred to in the article. It will also be observed, that the estimated increased value of property, is confined in the extracts quoted to a narrower strip of land along the line of Railway than I have embraced.

PROSPECTIVE THROUGH BUSINESS.

The geographical position of Western Canada, in relation to the American States, east and west of the Lakes, is somewhat remarkable; it lies like a stepping stone betwixt them, and either over or around it must their produce and merchandize be carried. Until late years, the whole of the traffic of the west flowed round the southern shores of Canada

by Lake Erie, but the construction of the Great Western Railway from Clifton to Windsor, and the Northern from Toronto to Collingwood, showed that wherever shorter and speedier channels of communications were opened, they at once commanded a large share of existing business, and absorbed a very considerable proportion of that which was constantly being created. Since the opening of the Great Western Railway, it has been served with a constantly increasing stream of traffic, and although scarcely four years in operation, its present revenue exceeds the gross estimated revenue given in the early reports of its engineer, Mr. Stuart, by the enormous sum of £150.000 per annum; and the Northern Railway, although as a through route, as vet only in partial operation, has at seasons been pressed with business beyond its present capacity. This enterprise when fully established with ample floating connections, can scarcely fail to realize the sanguine expectations of its early promoters.

Bordering on and away west of the Lakes, we find the great grain-growing territory of the North American Continent. It extends not between the same parallels of latitude, but between the same isothermal lines as those between which the grain districts of Europe are spread out. North of the parallel of latitude passing through Chicago, and westerly from that City, it embraces an area of about 200,000,000 fertile acres; by reason of a great physical peculiarity of the Continent deflecting the isothermal lines many degrees northerly as they are drawn in the direction of the Pacific,* one half of that immense area, or

^{*}In reference to the climate in the interior of the North American Continent, the following is from the pen of M. Lorrin Blodget, formerly engaged in Meterological researches in con-

100,000,000 acres, lies north of the latitude of Mackinaw, and fully one third-of the whole is British

nection with the Smithsonian Institution, Washington,—he is considered an authority on the subject:

"In the interior, the public appreciation of the climate has been greatly at fault. By a peculiarity of configuration, which exists in no other part of the temperate latitudes, it grows warmer in going northward in the interior. It required ages to convince the non-migratory aucients that the heat decreased towards the north, or to discover this apparently self-evident law. Here, however, it is again in fault, and the pyramid building Egyptian would find confirmation of his original philosophy. From Fort Massachusetts, at the limit of the cultivable portion of New Mexico, at 3710 north latitude, to the plains of the Saskatchewan, at the 52nd parallel, the mean temperature and the cultivable capacity steadily increases. On the Platte it is warmer and more cultivable than on the Upper Rio Grande; on the Missouri, at Fort Benton, it is superior to the Platte; and on the Saskatchewan the country is better on the whole than on the Missouri. Most of this difference is due to difference of altitude, yet nearly half of it may be assigned to exterior climatological causes, those which reduce the temperature of the eastern side of the continents, and increase the mean temperature of the western sides. In regard to altitude, Fort Massachusetts is 8,400 feet above the sea; Fort Laramie, on the Platte, 4,500; Fort Benton, on the Missouri, 2,600 feet, and the country of the Saskatchewan scarcely one thousand feet above the sea.

"All these points lie in prairie districts; yet the prairies of the Saskatchewau and Assineboin are equal, if not superior, to others in fertility. Here is a line curving fifteen degrees of latitude, or almost the equivalent of the coast of the Atlantic States, or the distance from New Orleans to Lake Superior, which represents a new and habitable country nearly identical in climate. As a climatological fact simply, this is a most interesting conditiou; but its significance is much more than a point in science; it is the definition of a region of equal value for settlement over this immense extent; where it had been supposed that the north must necessarily be uninhabitable.

* * * * *

"In December, 1853, the thermometer did not fall lower at Fort Benton, on the Upper Missouri, than it has done in the present month at Washington. In January, 1854, there were much lower readings, but the clearer atmosphere modified the effect of low temperatures, as it is well known to do at St. Paul, Minnesota, that is, they are not so sensibly severe, and do not affect business and comfort so decidedly. This is due to the drier atmosphere. In February, the measure of heat was much above that of February last here; the successive months rapidly grew warmer, and the heat of July and August equalled that common at Philadelphia. So far as known on the Upper Missouri and the South branch of the Saskatchewan, this is the fair expression of the climate, and, to understand the improvement of climate in going westward, let it be remembered that there are plains 1,200 to 2,800 feet above the sea, and between latitudes 47° and 51° north. For corresponding latitudes on the Atlantic coast, we must take Newfoundland and the uncultivated districts north of Quebec."

soil. This extensive country is growing in populalation and commerce with such a steady rapidity. that it is difficult to conceive the magnitude of its productions and the importance of its trade a few vears hence: take for example the State of Wisconsin, bordering on the western shores of Lake Michigan: in 1840 she had only 30,000 inhabitants, between that period and 1850, she added to her population 30,000 on an average every year; during the last five years she added at the rate of 50,000 per annum, being a total increase from 30,000 in 1840, to 600,000 in the short space of 15 years. But she is even now but thinly populated. It is calculated that in this state alone there is ample room for a farming and general population of 6,000,000 souls. Wisconsin is only one State; beyond and around, is a vast country rapidly filling up. Illinois added 450,000 to its population during the last five years. Wisconsin will not long be considered in the West; she is even now fast becoming a Middle State. Iowa stretches 300 miles beyond the westerly limits of Wisconsin, and at this distance, on the westerly confines of Iowa, settlements are forming. Minnesota extends 400 miles north and west of Iowa. 200 miles beyond the Selkirk settlement on the Red River, and within a similar distance of the great valley of the Saskatchawan. Minnesota, scarcely eight years old, contained 150,000 inhabitants a year ago, and as a type of the progress of the whole State, we may look with astonishment at the progress of its capital, St. Paul. In 1847, St. Paul had no existence; in the spring of 1856, it was large enough to support 10 newspapers, five of which were dailies.

Such being the rate of progress of the West and the North-west (for be it remembered, the Town of St. Paul is considerably north of the latitude of Saugeen,) we may be perfectly safe in predicting, that its commerce will increase 100 per cent. in the short space of six or seven years, and in consequence of this increase the avenues of traffic will require to be doubled, either in capacity or in number, within a similar period. It is for Canada then, to take advantage of her peculiarly favourable position, and in anticipating the growing commercial wants of our neighbours as well as our own, to direct the general course of traffic by many leading streams, over her territory, and thus securing the carrying trade of an extensive and perhaps the very best portion of the North American continent, assume a most important position, politically as well as commercially.

EXISTING BAILWAYS.

While it will easily be admitted that the proposed link of communication must prove of important value to the Grand Trunk Railway of Canada in providing for it an outlet on Lake Huron, in opening up a new avenue through which Western traffic will be drawn over its rails, and in contributing no inconsiderable amount of local business, by concentrating and forwarding the products of a section of the Province which, when properly developed, will not

The Future of Western Canada.

The Caughnawaga Canal. Our Railway Policy.

Avenues of Western Trade.

^{*}Mr. John B. Jervis, a distinguished American Engineer, estimates that this trade will double in the next six, and quadruple in the next fifteen years.

[†] For the importance of the trade of the West, see extracts from the following articles in Appendix C:—

be surpassed by any equal extent of area in any part of Canada; while all this is admitted, it may be urged by those who are fully aware of the advantages the Northern Railway has bestowed on Toronto. and who are deeply interested in its success, that the proposed new line will be a rival to the one terminating at Collingwood; but I think a little reflection will show that such an opinion need not be entertained. Certainly the way business of the one cannot in the slightest degree be interfered with by the other, seeing that they will be situated about 40 or 50 miles apart, besides being separated by an imposing physical barrier, stretching midway through the country. If they object on account of the through business, and if they are not prepared to admit that the Northern Railway, freed from present temporary embarrassment and fairly established as a through route, (which hitherto has only been partially attempted,) will, before the present project can possibly be completed, be in a position to fear no rival—they must at least allow that the Saugeen territory is too important a field to remain long without Railway service, and if its traffic be not secured by a Railway forming a junction with the Grand Trunk, or controlled by Toronto interests, let it be remembered there are other interests not less strong, at points equally inviting. The Great Western Railway has a branch under construction to Berlin, with a charter of extension to Saugeen. Buffalo and Lake Huron Railway is in operation to Stratford, with Legislative authority to extend from thence Northward to the same point. And I cannot see that a Saugeen Railway, built under the control of either of these interests, would be less a rival to the Northern line than would the one under consideration.

Without instituting comparisons between the advantages of the proposed new route, and other Canadian through channels, I presume sufficient has been advanced to show that there are abundant prospects of business for all. Already there are at least a dozen Railways in operation leading from the interior of the West to Lake Michigan ports; others are under construction and in contemplation, while across Canada there are only two open for traffic and two under construction. These Western lines will all bring traffic into the channel of Canadian ones, and although there may probably be a generous rivalry in the management of the latter, sufficient to induce each to put forth its best efforts to insure economy to the several companies, and accommodation to the public, I think it is very evident, in view of all the circumstances, that there need be no apprehension of want of business to the full capacity of this, as well as ultimately to all other Canadian Railways yet constructed or seriously contemplated, and on the broad principle that the united interests of the many are stronger than the few, I think it may fairly be assumed that the establishment of several Canadian channels of commerce will, with greater certainty of success, be the means of attracting and directing a leading American traffic across our Province, than otherwise.

RECAPITULATION.

In drawing these observations to a close it may be well to recapitulate very briefly what I have endeavored to establish as the result of my enquiries.

1st. A large extent of country remains to be served by a work such as you have in hand, and in

no part of Canada is there a wider or more legiti-

mate field for Railway enterprise.

2d. The great natural obstacles to the easy connection of the Saugeen territory with Toronto have been overcome by the construction of the Grand Trunk to Guelph, from whence North-Westerly the features of the surface are such as will admit the building of a Road with easy grades at an ordinary cost.

3d. The Harbours at the proposed Lake Huron

Termini, may be considered unexceptionable.

4th. The country to be served possesses in rich abundance all the elements of agricultural prosperity.

5th. It is occupied by a very superior class of

experienced and intelligent settlers.

6th. The climate is favourable to vegetation, and has been found to be extremely salubrious. Ague, the curse of many new settlements, is not generally known.

7th. The construction of the Railway would produce immediate local benefits to a marvellous extent, and lead to the rapid development of the resources

of the country.

Sth. The through business, viewed in prospective, may be considered as limited only by the capacity of the Railway to transact it, and the tonnage of floating connections, which a constantly increasing Western traffic must create on Lakes Michigan, Superior and Huron.

9th. While it could not interfere to any appreciable extent with the way business of existing Railways, it would at the same time prove an important

feeder to the Grand Trunk Railway.

CONCLUSION.

Having, I trust, satisfactorily established the above points, we are now in a position to take into consideration the very business like question—will

the Road pay?

If I have succeeded in showing that the agricultural importance of the country to be served is such as to yield a more than ordinary amount of way business; if it be allowed that the prospective through traffic is, humanly speaking, almost without limit, then with proper management it must follow that the Road will be fully occupied; and, if fully occupied, it is apparent that this Railway, constructed through a country singularly free from any considerable physical obstacles, and hence capable of being cheaply built, can scarcely fail to produce a direct revenue. But in this case as in many others, it is through the accompanying and consequent advantages of the undertaking, that positive good and profitable results are to be chiefly looked for.

I think it has been shown that the Townships along its route, and for many miles on either side, will be benefitted immensely in the circulation of a large amount of capital during its construction, in giving them an outlet at all seasons of the year; and, as already shown, every pound expended on the Road will increase the actual value of the property it represents, ten-fold. It will in this way re-imburse every Municipality North-Westerly from Guelph, and if they were in a position to do so, they would be justly warranted in building the entire

Road at their own cost.

It will benefit the City of Toronto in a like manner. It will contribute very materially to her prosperity, in drawing an additional stream of commerce to her

wharves, in adding two and a half million acres to her agricultural back country; and in this latter respect, its importance can scarcely be over-rated. Perhaps few Townships are better known in Toronto for their fertility and their productions, than Scarborough, Markham, Vaughan, and Chinguacousy.— In a short time, some of those I have named as just emerging from the wilderness, in the valley of the Saugeen, will equal, if they do not surpass, them in all that constitutes agricultural wealth—of such are the Townships of Arran, Elderslie, Brant, Normanby, Carrick, Greenock, Bruce, and indeed I might add the whole tract of country stretching from the first tier of Townships in the County of Grey, westerly to Lake Huron. The greater part of this rich territory is occupied by the valley of the River Saugeen, and I do not hesitate to say, that the time is not far distant when its wheat will be as widely and as favourably known amongst the buyers in Canada, as that grown in the Genesee Valley is familiar to and prized by American millers.

It will be admitted that if the agricultural Townships of the Counties of York and Simcoe have greatly contributed to build up the City of Toronto, and if the establishment of the Northern Railway through their midst has very materially promoted her prosperity, how much more will the contemplated North-West line tend to advance her interests, when it will more than double in extent her back country, and open up an entirely new field, for her enterprise? As Boston, New York, Chicago, Montreal, and I may add Hamilton, each builds radiating lines of Railway, in order to make tributary to her merchants all the commerce, present as well as prospective, within reach, so likewise should Toronto, and thus widen a sure foundation for positive and

enduring wealth.

In concluding this Report, permit me to state, that if, in endeavouring to discuss a greater variety of subjects than strictly comes within my province, I have been somewhat prolix, I may urge as an apology my desire to do justice to the merits of the contemplated undertaking, and a wish to carry out in full the instructions with which you were pleased to favour me.

The Correspondence referred to as having been received from various gentlemen, on the local advantages of Railways, as well as the articles alluded to in the above Report, on the trade of the country

west of the Lakes, are herewith submitted.

I have the honour to be,

Gentlemen, Your obedient Servant,

SANDFORD FLEMING.

Engineer.



APPENDIX A.

REMARKS ON THE SETTLEMENT OF THE COUNTRY SUGGESTED DURING A RECENT TOUR.

There is a wide difference between the task of conveying an accurate and yet general description, in popular language, of a new or even partially settled country, and one which can be seen at leisure and known or appreciated by its artificial productions and capabilities. A traveller in many of the oldest settled parts of Canada has abundant opportunities of comprehending now the reasons which induced the pioneer to establish himself in any particular spot; but, if he were himself placed in the position once occupied by him, whose foresight and industry he admires in the centre of fertile fields and comfortable homesteads, he would soon learn how much of energy, of self-confidence and of trusting hope it required to face the wilderness in its rude condition of nature. With an experience of what has been accomplished, and of what is daily and hourly being accomplished in the distant vallies of some Canadian rivers, we need little power of imagination to scan the dreary past, understand the hopeful present, and foresee the prosperous future of industry and endurance in districts now comparatively obscured and unknown by reason of their isolation. You travel with considerable difficulty and much personal fatigue through an extremely fertile but remote region. You see here and there, sometimes miles apart, a few acres cleared and rude shanties with bark roofs forming the homes of isolated settlers. It is easy to learn the history of the past few years of these forest dwellers. They have trusted altogether to the future. They have determined upon the site of a future home, and all their prospective wealth, by a simple inspection of the soil they now occupy, and the advantages of position it will one day acquire. Meanwhile they have in most cases suffered great privations and endured much labour in their efforts to exist so remote from the accessories of civilized life. Often it happens that suggestions as to present difficulties fall from the lips of the traveller. These are met universally by the response,

that present troubles are as nothing to those which are passed. Often will a settler relate how he travelled thirty miles through almost trackless forests with fifty pounds of flour upon his back, which he had procured from the nearest mill. And now the roads, though just cut out from the bush, are considered in comparison, serviceable highways for present requirements. And in this respect each succeeding year as it passes brings a rapid increase of value to all property near the allotment of road often indeed doubling and even trebling the money value, without any appreciable outlay on the part of the settler, who is engaged in clearing fresh acres and building for himself an additional barn.

It is very probable that in no part of Canada has the progress of settlement so rapidly passed through all the phases of small beginnings and much endurance to a hopeful future, as in the valley of the Saugeen river. Several contemporaneous circumstances have united in securing for this distant and obscured region a sudden and well deserved growth to prosperity and importance. Containing within itself all the elements of an extremely rich and fertile agricultural country, it began to attract notice at a time most fortunate for sectional prosperity. It would be difficult to imagine any connection of external events and inherent worth more alluring as a field of future industry Explored and brought under the notice of the public scarcely five years ago, at a time when Railways, with their unthought of advantages, were yet in the misty future of Canada, it received as a perfect wilderness only can receive, a laborious and hopeful people, and these elements of instant progress and future wealth poured in, in a ratio without parallel in these They are now earnestly looking for their greatest want—an outlet for the increasing products of their industry and doubtless a region possessing these elements of progress, and so highly favoured by nature, cannot long remain without the advantages of Railway service to complete the development of its resources.

APPENDIX B.

CORRESPONDENCE, &c., IN RELATION TO LOCAL ADVANTAGES.

Letter from Joseph Hartman, Esq., M. P. P., Warden of the Counties of York & Peel, Relative to the Benefits Derived from the Construction of the Northern Railroad.

WHITCHURCH, 26th August, 1856.

DEAR SIR:

I very much regret that absence from home for several days, and an unusual press of business calls since my return, have prevented me, until now, from replying to your favour of the 14th.

You will observe the accompanying statement applies solely to farming lands in an improved state, as this part of the country

consists mostly of such.

Where timbered lands, furnishing material for lumber, exist, a larger proportionate increased value is given by the construction of the Railway, because the cost of rendering timber and lumber available for market, where the only means of transport is by waggons or sleighs, prevents any large amount being carried the distance of 30 or 40 miles, while the Railway reduces that cost more than one-half.

In estimating the value of farming lands, I am guided by actual transactions in the buying and selling of farms in this vicinity—many farms having changed hands here recently.

A brief calculation of some of the advantages to be derived by the farmer—from the facilities afforded by the Railway—will enable any one to see how the farmer must be benefited by living in the vicinity of such a work. At this distance from Toronto, the cost of transporting wheat to that market is at least 6d per bushel, when carried in waggons. When carried by Railway, one-half of this may easily be saved, and I think, under favouraable circumstances, more; but assuming that only 3d per bushel can be saved on wheat, and that the average crop

be 25 bushels per acre (it has of late exceeded that here) we have in this one item alone a saving of 6s 3d an acre per annum, or, in actual value, upwards of twenty dollars added to each acre of land. Although cordwood is not now carried over this road—there is a home market here for all the cordwood to be spared from this part of the country, and at a price much in advance of what it would be worth without the Railway; in fact, land covered with hard wood only, is considered more valuable than without the timber, as within five to eight miles of a station, the wood will pay a very handsome profit on the expense of clearing—in some cases equal to the value of the land without the timber.

I may also mention that every thing capable of being converted into money in Toronto, commands ready sale at almost every point along the line of Railway, for cash, at Toronto prices, deducting freight; this was not the case five years ago. Butter, eggs, fruit, vegetables of all kinds, (except occasionally potatoes,) poultry, game, &c., were formerly looked upon as of small importance as articles of trade—they now command prices which render their production exceedingly profitable. Much of this increased value must be attributed to the facility afforded for

transport by Railway.

I am not aware of any attempt to use this Railway as a means of transport for supplying the City with milk, but I am persuaded dairymen will before long find an advantage in keeping their cows on some of the rich pastures bordering on our streams, and employing the Railway to convey their milk to the The cost of keeping cows in winter will be less here than in Toronto.

In speaking of the saving of expense in transporting grain to market, I omitted one very important point to the successful agriculturist, it is this-in most instances, I have observed for several years past the best prices can be obtained at a time when the farmer wants all his force at home, as much as possible, either to prepare for the next wheat crop, or to secure his roots, or to " fall plough" his lands.

Without a Railway a fortnight will be consumed in doing what one day will accomplish with it. This advantage I consider, in many instances, even more important than the direct ones, inasmuch as it enables the farmer to give more care and attention to the preparation for the next crop.

To enumerate all the benefits to be gained by a judicious Railway system, will require an abler hand and more time than I have to devote to it; but it may suffice to say, a proposal to close any Railway traversing such a country as this, would cause discontent greater than that which induced the Israelites to wish again for Egyptian bondage.

Yours, very truly,

JOSEPH HARTMAN.

SANDFORD FLEMING, Esq., Toronto.

TABLE, Showing the Value of Land Before and After the Construction of the Northern Railway.	From 1 to 5 miles on each side of the Railway.	From 5 to 10 miles on each side of the Railway.	From 10 to 15 miles on each side of the Railway.
Present average value per acre of lands from 30 to 40 miles north of Toronto,	\$75	\$70	\$65
Average value per acre prior to the construction of the Ontario, Sincoe and Huron Railway,	35	32	32
Increase in value,	40	38	33
Proportion of increase due to construction of Railway	20	18	13
Proportion due to other causes,	20	20	20

The figures denote the rate per acre in dollars.

N. B.—These estimates apply solely to farming lands occupied as such, and more or less improved. There are lands within these limits which command a much higher figure, and, of course, some which will sell somewhat lower, but I think I have approached very nearly a fair average.

J. H.

Letter from Sir James D. Hamilton Hay, late of Osprey.

TORONTO, 3rd Sept. 1856.

DEAR SIR:-

I have to acknowledge the receipt of your letter of the 29th ultimo, and regret that circumstances have prevented my earlier replying to it. You wish me to give you my opinion as to whether the inhabitants generally, of that section of country in which I have resided for several years prior to and since the formation of the Northern Railway, have been benefitted by its establishment, and as to what effect, if any, it has had on the value of land.

From the remote position of the Township of Osprey from the

immediate vicinity of the Northern Railway, (some 22 or 23 miles,) it is natural to suppose the benefits resulting from it would not be so immediately felt as in the more adjacent localities; but the result has shown, not only its vast effect in promoting the comfort and prosperity of the inhabitants generally of the Township, but the direct tendency it has had in increasing the value of land in that section of country, as will be seen by the enclosed printed form which I have filled up, showing the average price of lands before and since the formation of that Railway. There cannot in my humble opinion be the shadow of a doubt as to the great and lasting benefit the country through which it passes, as well as a vast extent on either side of it, has derived from the construction of the Northern Railway-which ever must be the case through whatever portion of the Province a Railway is carried—as it is the only legitimate and effectual means of opening up and subsequently benefitting a country. I consider my own immediate section to be at present 20 years in advance of what it would have been had that Railway not been established.

Believe me to be, my dear sir,
Yours very truly,
JAMES D. HAMILTON HAY.

Sandford Fleming, Esq.

Note.—This gentleman estimates the increase in value of land in Osprey, about 20 or 30 miles distant, due solely to the construction of the Railway, at 240 per cent. of its former value.

Letter from George Sneath, Esq., Clerk of the Townships of Vespra and Sunnidale.

VESPRA, September 5th, 1856.

SIR:—

* * * * I believe I am speaking within bounds when I say that the inhabitants of this locality would submit to be taxed four-fold, rather than loose the advan-

would submit to be taxed four-fold, rather than loose the advantages of the Railroad, in fact, the benefit to them is incalculable.

Prior to the construction of the Railroad, the Township of Sunnidale was considered the poorest Township in the County of Simcoe, on account of the distance from market and the bad roads. The few settlers who were in it had no inducements to encourage them to raise surplus produce, for it was only at the cheapest season of the year they could get to market, and that not a cash one, consequently they were very poor. But the case is altered since the construction of the Railroad; the easy facilities

it affords them of getting to market at all seasons of the year, where they can obtain eash for all the produce they can spare, at nearly Toronto prices, has given them such an impetus that instead of barely growing sufficient to support themselves, they now raise a considerable surplus for market. I put the following question to one of the oldest settlers:—"Supposing you had your choice, as you are heavily taxed, of being relieved from those taxes and thereby loose the advantages of the Railroad, or remain as you are?" His answer was, "I would rather lose half my farm than lose the Railway." I attribute the favourable changes I have enumerated in this locality almost entirely to the advantages afforded by the Railroad passing through it.

I have the honour to remain, sir,

Yours truly,

GEO. SNEATH, T. C., V. & S.

Letter from Wm. Armson, Esq., Late Warden of County Simcoe. West Gwillambury, 6th Sept. 1856.

DEAR SIR:

I much regret that ill health and other unavoidable circumstances have prevented me, until now, from answering your favour of the 29th ult. In reply, I respectfully state, that I have carefully considered its enclosed copy of Mr. Hartman's letter, and am decidedly of opinion that I cannot do better than fully endorse his estimates of the value of lands, as well as his valuable remarks on the benefits conferred by the construction of the Railway, as being applicable to this Township, and would further add that many of its bitter opponents at the time of the agitation for its creation, now freely express their regret for the course they then thought proper to pursue.

Yours very truly,
WM. ARMSON.

SANDFORD FLEMING, Esq.,

Toronto.

Letter from W. C. Little Esq., Reeve of Innisfil.

INNISFIL, COUNTY SIMCOE, C. W., September 8th, 1856.

SIR:

The subject of your communication, dated August 29th, I have somewhat considered, and feel happy in replying to your questions, as far as my judgment will admit of, regarding the results accruing from the uses of our Railway. I will here

remark that your query very rightly does not demand consideration whether such a Railway as our Northern Line proves beneficial to this township, and the County generally—for benefits that are derived from it are too apparent, even to the most sceptical observer—but how far do these advantages extend: in short, do the rate-payers of this township receive a "quid pro quo?" Unhesitatingly I reply they do. This year my township is called upon to provide the sum of £595, as its portion, or share, in the County expenditure, to meet the interest on the debentures of the Northern Railroad grant, and to form a sinking fund for the due payment of the same. In order to meet that sum, we levy the rate of nearly two pence in the pound, on the real and personal property in the township. Yet the advantages derived from the Railway are so manifest, in a variety of ways, that I am satisfied our township would, rather than lose so essential a convenience, make still further sacrifices, and greater exertions to secure those privileges, so kappily conferred upon us. In an uncleared township, comparatively speaking—in a township similar to this—I should apprehend that one of the great advantages to be derived from a Railroad running through it, would be the profit obtained from its cordwood, lumber, and square timber. Such is here the case. For instance, five years ago, wood was only 4s. 6d. per cord, consequently farmers preferred burning their fallows. At this time, supposing the farmer gives 3s. per cord for the cutting, and 3s. also for the hauling of it three miles to a station, not so bad a profit is seenred, when compared with former days, the ruling price at present being 8s. 9d. per cord. Such is one of the positive good results effected by the Railroad. There are also other changes pleasingly perceptible. I refer to improved prices of stock and produce, to the absence of Sheriff's sales and seizures by his bailiffs: but whether such agreeable contrasts are owing to the Railroad in particular, I cannot pronounce on—sufficient that the contrast is. I may imagine that there is something more than the name in progressiveness—in the enterprise of a people in unlocking capital and throwing open the resources of a country; labour thus flows in. Man being somewhat gregarious in his habits, occupies the land, and riches * * * * return to the country one thousand fold.

I have the pleasure to remain,
Sir, yours obediently,

W. C. LITTLE.

SANDFORD FLEMING, Esq., Toronto. Letter from Jas. Sanson, Esq., Wurden of the County of Simcoe.

ORILLIA, 8th Sept, 1856.

DEAR SIR:

Had I not been much engaged of late, I would have

replied to your favour of the 29th ult., in course.

I can bear most willing testimony to the very great advantages resulting from having a Railway through an agricultural and non-improved country, both as regards its powerful effects in increasing to so great an extent the value of property, and also in improving the social and intellectual condition of the inhabitants for many miles on each side of the line. From my having been in the direction of the Northern Railroad prior to its being opened, to the present time, and representing the large amount of stock held in it by the County of Sincoe, I have watched with much interest its effects on the prosperity, not only of the several townships intersected by, but also on those at considerable distances from it; and it has certainly far exceeded any expectations I could ever have entertained.

I have sometimes contemplated what would be the effect produced by a suspension of the operations of the Ontario, Simcoe and Huron Railway, say for one month, and feel certain that the revolution which would be produced in the order of things, would be much more serious in its effects, and disastrous in its

consequences, than most persons could be at all aware of.

At the July Session of the County Council, after much deliberation, they adopted what was considered an equitable basis on which to assess the lands in the different townships, sixteen in number, with the addition of the County Town of Barrie—a copy of which I send you with this, from which you will perceive that the greatest advance on the value of land has taken place in those townships on the line, or nearest to the line of the Railroad. In the contiguous township to this, viz: Oro, the centre of which is about 16 miles distant from the Barrie Station, I should say that since the opening of the Road, land there has advanced one hundred and fifty per cent., one hundred of which may be put to the credit of the Railway, and fifty per cent. to the general improvement in the value of land. In this township, distant about 26 miles from the Barrie Station, farming land has not benefited so much by the Railway, but village lots have greatly increased in value, arising partly from the extreme beauty and amenity of its situation on Lake Coucheching, and partly by the ready access to and from Toronto, by the Company's fine steam boats in connection with the Northern Road.

The greatest increase in the value of land is exhibited in what was at one time considered the most out of the way township in the County of Simcoe—Nottawasaga—in which is situated the Town and Harbour of Collingwood, the assessed value there being over £100,000 above what it was three years ago.

I should think that scarcely any consideration would induce a community who have tasted of the benefits derived from a Rail-

way, to consent to their withdrawal.

I remain, Dear Sir,
Yours faithfully,
JAS, SANSON.

Sandford Fleming, Esq., Toronto.

P. S. Of course you are aware that the value put upon lands in the County of Simcoe, for the purpose of assessment, is not anything like what farms in several townships have lately been sold for. In West Gwillimbury and Tecumseth I understand that improved farms have lately changed hands at one hundred dollars per acre, and proportionally high figures have been realized in other townships.

J. S.

Letter from George Lount, Esg., Registrar of the County of Simeoe.

BARRIE, 8th Sept., 1856.

DEAR SIR:

In reply to yours of the 29th ult., which would have been answered earlier had I not been absent until within a few days, I send you the enclosed statement. You will bear in mind, however, that in very many cases immediately in the vicinity of the Railroad, the value of land has increased to a much greater extent than the statement sent, indicating, in some instances, as much as £50 per acre where land formerly was worth only 10s. per acre, a result which is certainly owing to the construction of the Northern Railroad. The influence caused by by the construction of the Road has also extended to nearly as great an extent to many other townships not enumerated in the list; but I suppose your object will be attained by the valuation sent by me, and others who no doubt you have communicated with on the subject.

The inhabitants of this County (Sincoe) having tasted the benefits of a Railroad, would consider themselves ruined, (and

justly so,) was anything to happen to close it up and throw them back to the same state they were in prior to its construction, no sacrifice would be considered too great to procure again the Railroad and the innumerable advantages it confers.

Yours truly,

GEORGE LOUNT.

SANDFORD FLEMING, Esq.,

Toronto.

VALUATION OF LANDS REFERRED TO IN THE ABOVE LETTER.

The following Statement is intended to show the average value of Land per acre at the present time, and prior to the construction of the Northern Railway, in the townships mentioned underneath, with the proportion of the increase in the value, which, in the opinion of the undersigned, may fairly be considered as due to the advantages derived from the construction of the above work:

NAME OF TOWNSHIP.	Present Average Value per Acre. 1856.	Average Value per Acre prior to the Construction of the Northern Railway.	Increase in value.	Proportion of In- crease due to Con- struction of Rail- way.	Proportion due to Other Causes.
West Gwillimbury,	£12 10 0	£2 0 0	£10 00	£8 10 0	£1 10 0
Innisfil,	10 0 0	1 10 0	8 10 0	7 10 0	1 0 0
Essa,	10 0 0	1 10 0	8 10 0	7 10 0	1 0 0
Tecumseth,	12 10 0	2 0 0	10 0 0	8 10 0	1 10 0
Adjala,	8 10 0	1 0 0	7 10 0	7 0 0	0 10 0
Tosorontio,	5 0 0	0 10 0	4 10 0	4 0 0	0 10 0
Sunnidale,	5 0 0	0 10 0	4 10 0	4 0 0	0 10 0
Nottawasaga,	8 10 0	0 10 0	8 0 0	7 10 0	0 10 0
Vespra,	10 0 0	1 10 0	8 10 0	7 10 0	1 0 0
Oro,	10 0 0	1 10 0	8 10 0	7 10 0	1 0 0

GEORGE LOUNT, Registrar, Co. Simcoe, 8th Sept., 1856. Letter from Geo. Douglas, Esq., Township ('lerk of West Gwillimbury.

Bradford, Sept. 12, 1856.

SIR:

In reply to yours, making inquiry as to the relative value of property in this vicinity now and previous to the construction of the Northern Railroad, I must say that it has even exceeded

the expectations of the most sanguine.

Although perhaps better situated than many other townships along the line of Railway, before the construction of the Railroad, having had a macadamized road from here to Toronto, yet even we have found a sensible difference in the conveniences afforded by Railroad. In the value of property the rise has been great here, as in every other township along the Road. Of course other causes have contributed to this as well as the Railroad, but it has been a great cause of the rise.

Some in this township were violently opposed to the construction of this Road when first agitated, but I think you could not find an individual here now but would candidly acknowledge that he was in error respecting it; that the benefits they have derived from it far exceed their expectations, and that they would not do without the Railroad, even if the tax for it was

trebled.

I may add here, that owing to the great increase in the value of property, and the vapid settlement of the Northern townships in the County of Sincoc, through which the Railroad runs, our tax in the Southern division is less this year than last. In 1855 West Gwillimbury paid £864 Railroad tax; in 1856 it is £674, and the probability is that it will be still more reduced in 1857.

In conclusion, I think you would find it difficult to persuade any of our farmers, who were at first so violently opposed to taxation for the construction of the Road, to settle in any locality far removed from a Railroad either in actual operation or in prospect.

I am, &c., &c.,

GEO. DOUGLAS, Town Clerk, West Gwillimbury.

S. Fleming, Esq., Toronto.

Letter from Samuel Rogers, Esq., Recre of the Municipality of Tiny and Tay.

Penetanguishene, 21st Sept., 1856.

SIR:

In reply to your favour of the 29th August, I would say, it is difficult to determine with correctness the actual increase in the

value of land, traceable to the opening of the Northern Road as our position, as regards the Road is not the best, the Barrie Station (distant 25 to 35 miles miles from us) being our nearest, and Barrie not our market, so that directly, the Railroad does not benefit us much, only as it serves to bring up our merchants' supplies. Indirectly we gain largely, as the Road drains the produce of more Southern townships, which sent their grain to our market, (Penetanguishene,) frequently causing a "glut," the demand being limited to home consumption, and the Indian trade on Lake Huron. Wild lands have risen in value to a far greater extent than have cultivated, being at least three times

their former value.

These townships, are I believe, with the exception of Mono, the least benefited by the Northern Road of any in the County of Simcoe. With this exception, Simcoe has increased in value to an almost unpredented extent, and far in advance of the anticipations of the most ardent and sanguine promoters of a scheme that has raised Simcoe from a poor backwood County to a position among the first in the Province; a position not the less enviable for being the first County which has given pecuniary aid to a Railway Company; and I have no hesitation in saying, that if the Northern Road were not built, Simcoe would tax herself to almost any amount to obtain a Road. Shortsighted and narrow indeed must be the policy of those in authority, in any section of the Province having work for a road, (and where in Canada could a road be built that would not find ample employment,) that will not render aid to its construction, as they would be repaid ten-fold by the increased facilities of intercourse, the rapid rise in the value of property—landed and otherwise-and the bringing into market of their wild and unproductive lands.

Excuse these hurried and crude remarks, and permit me to

subscribe myself,

Your very obedient servant, SAMUEL ROGERS,

Reeve of the Municipality of Tiny and Tay.

Sandford Fleming, Esq., Toronto.

Letter from the Hon. W. B. Robinson, M. P. P. for South Simcoe.

TORONTO, Oct. 11, 1856.

DEAR SIR:

I have to apologize for not having sooner answered your letter respecting the advantages derived by the Country from the construction of Railways. I have read Mr. Hartman's letter to you on that subject, and fully concur in the very sensible remarks he makes, and believe he has not overstated the benefits conferred on the section of country through which the Northern Railroad passes. The value of lands in the more remote townships through which this Road passes, has, I think, been increased four-fold. The farmer residing in Nottawasaga, for instance, now obtains nearly as much for his produce as he who lives near the city, when before the Railroad was made, he could seldom cash for his products at any price. Many of the productions of the farmer, such as vegetables, poultry, &c., would not bear the expense of transport over long and bad roads, and were consequently not saleable. Now, everything the same farmer raises commands cash, and is readily sold.

The advantages felt by the settlers on the Northern Road will, of course, accrue to others similarly situated in any part of the Province; and wherever there is a large tract of good land, now remote from market, the benefit to be derived from a Railroad intersecting it, can hardly be over-estimated. Of this fact people generally are now fully aware, and we see efforts making

in every direction to obtain the much desired boon.

With respect to the prospect of a Railroad paying, if made through a fine farming country, I have not much doubt of its doing so, if well managed, and particularly if constructed on a line presenting no very serious objects to overcome, such as rock excavation, or the crossing many large rivers by expensive bridges. Short lines are not found so profitable as long ones, as you are well aware, and I think it desirable and good policy in locating a Railway to pass either through the principal towns and villages on its route, or so near them as to give the inhabitants easy and cheap access to the depots.

I regret that my time would not permit me to give this important subject the attention which it merits; but I believe the intelligent inhabitants of this country are now fully alive to the benefits to be derived from Railways, and that you will find them willing to co-operate with you to the utmost of their ability.

Your obedient servant, W. B. ROBINSON.

SANDFORD FLEMING, Esq., Civil Engineer, Toronto. Letter from Benj. Ross, Esq., Township Clerk of Innisfil.

Innisfil, 30th Oct., 1856.

DEAR SIR:

I am sorry that I have delayed so long answering your letter of the 29th August, but being occupied in making out the Collector's Roll for the township, I hope you will excuse my remissness in not answering it sooner.

I now hand you what I think is a fair valuation of lands within eight or ten miles of the Railroad, and at a farther dis-

tance the land has risen in a like proportion.

I must likewise observe that land adjoining the Railroad, and well timbered with pine and hardwood, is increased much more than the statement I herewith enclose—the timber on some lots selling for £600 or £700 on 100 acres without the land, which would fetch, if good land, £1000. But this is only in some places on the Railroad. It is hard to tell how much the land has increased in value owing to the construction of the Railroad, and what I have put down I am certain is within the real value.

Those who were most opposed to the Road, and said it would ruin the farmers, as there would be no call for horses or for growing oats, hay, &c., now see their error, and are convinced of the great benefits which they are now deriving from it by reason of an increased demand and better prices for every article they have to sell to what there were before the Railroad was made, besides

the great facility of traveling, &c.

I consider Mr. Hartman's suggestions and reasonings very fair and candid, and nothing but what I think is very true.

I remain, Dear Sir,

Your very truly,

BENJ. ROSS,

Township Clerk.

To SANDFORD FLEMING, Esq.,

Toronto.

P. S. I believe those who were so much against this Railroad before it was made, would now, if again to be made, be its greatest supporters. Letter from Angus Morrison, Esq., M. P. P. for N. Simcoe.

TORONTO, Nov. 7, 1856.

DEAR SIR:

In answer to your letter in relation to the benefits derived from the construction of the Northern Railway, by the County I have the honour to represent, I beg to state: The County of Sincoe, as you are aware, subscribed £50,000 in order to secure the construction of the Railway, previous to which the lukewarmness of the City of Toronto as well as the County of York, was such that without this action on the part of Simcoe, it is generally believed the Northern Railway would not have been established. The £50,000 vote of the County Council met at the time with very strong opposition, and was ultimately passed, if I remember right, by the easting vote of the late Warden, Mr. Armson. Many of the inhabitants of the County believed they were forever ruined, and that they would be unable to sustain the burden of the taxes; but as the event has proved, a wiser step could not have been taken by the County. During the actual construction of the work, from £150,000 to £200,000 in cash, must have been put in circulation within the limits of the County, all real estate has been increased in value through the effects of the Railway, to an enormous extent, and it it is freely confessed by the farmers that they are ten times better able to pay the taxes now than they were formerly.

While I can fully endorse the valuation of property given by Mr. Lount and Mr. Hartman in the letters you have enclosed, I would remark that these gentlemen have reference only to lands within a limited distance of the line of Railway, whereas every portion of the County has been enhanced in value, partly on account of the general increase in land, but chiefly in this

section through the Railway.

If we take into consideration the whole extent of the County, it will be found to contain about 1,160,000 acres, and although distant parts are not of course so much benefited by the Railway as others along or near it, still a pretty correct average may be struck in the following way, viz: allow for one-half the County an increase of ten dollars per acre, and for the other half four dollars; we have the following result:

580,000	Acres	at £2	10, equals£1,450,000
580,000	4.4	£1,	580,000

Total,....£2,038,000

Producing a positive increase of over two millions of pounds to the actual value of the County, solely through the judicious investment of its securities to the extent of £50,000, in the Northern Railway, and however astonishing these figures may at first sight appear, they will be found by any one closely examining the question, to be rather under than over the mark.

The inhabitants of Simcoe are fully aware of the immense benefits already derived from the construction of the Northern Railway; so much so that I feel convinced that before they would consent to be without it, they would make efforts of no ordinary kind to secure what they have found so essential to the prosperity and convenience of a rapidly growing farming as well as manufacturing community. The County of Simcoe was formerly one of the poorest and most backward in the country; it now assumes a progressive, prosperous and prominent position.

I am, Sir,

Very truly yours,

ANGUS MORRISON.

SANDFORD FLEMING, Esq., Engineeer,

Toronto.

"OUR RAILWAY POLICY."*

"We now proceed to glance at the local benefits which have originated from the construction of Railways in Canada. The Great Western Railway speaks volumes for the stimulus given to every kind of industry through the extensive and fertile country it serves. The sudden and unparalleled increase in population and wealth of the towns through or near which it passes; the springing up of villages a few miles apart, throughout its length; and the doubling and even trebling in value of farming land within five or ten miles of its course, are evidences ample and uncontrovertible; yet it may be urged that the Great Western is an exceptional case; that the same advantages are not likely to accrue to other tracks of country through which Railways pass less favourably situated than that fortunate line of

^{*}Canadian Almanac for 1857, page 32.

traffic. That the local benefits conferred by our Railways are general throughout the country it is not difficult to show; and for the sake of impartial illustration, let the Great Western be for the time being ignored, and another line selected, for a short survey of the advantages it has conferred upon the country tributary to it. It may be well to divide the several elements of industry and wealth along a line of Railway into the following heads: 1st, Lumber; 2d, Labour; 3d, Farm Produce; 4th, Value of Land. The Ontario, Simcoe, and Huron Railway may be taken as an illustration. This line is 95 miles long, and has two outlets; one at Toronto, on Lake Ontario; the other at Collingwood, on Lake Huron. With regard to the first item, Lumber, it is an established fact, that in ordinary years, lumber conveyed a greater distance than 40 miles over country roads, will not pay expenses. Now any lumber made within twenty to thirty miles of the Ontario, Simcoe and Huron Railroad, can be brought to either an Eastern or a Western market at a considerable profit. Hence a vast tract of country extending over sixty miles in length, and forty to sixty in breadth, suddenly acquires value for the lumber it is capable of yielding, in virtue of the accessible markets which have been created by the construction of a line of Railway. 2d, Labour. Time is an element of the utmost importance to the farming industry of the country. The time consumed in conveying produce to market before a Railway existed, formed a serious item in the expenses of husbandry, twenty to thirty miles north of Toronto, in the days of mud, or even macadamized roads.

The whole line of Railway is now in effect a market; and as time and labour are almost synoymous in the agricultural season of Canada, the gain in a year to farmers within a few miles of the track may be estimated, at the lowest average, equal to twelve days' wages, besides the wear and tear of conveyances and other contingencies. This gain is established along sixty miles of the line, and from ten to fifteen miles on each side of it .-3rd, Farm Produce. Before a Railway existed north of Toronto, all minor articles of farming industry were neglected as articles of trade, over one-half of the region through which the line now passes. Now, however, at every station, fruit, butter, eggs, and vegetables command a ready cash sale. The price of fire-wood has risen considerably, so that in many localities where wood was an incumbrance, it has now become a source of profit, quite independent of ulterior farming operations on the land it occupied. 4th, Value of Land. Few persons could have foretold the extraordinary increase which has taken place in the value of land, in the remote Townships through which the Northern

Railway passes. Leaving out of view, altogether, the sites of villages or new-formed towns, and giving attention solely to farm land within five or ten miles of the track, the following curious results derived from unexceptionable sources, furnish an unexpected and startling proof of the local trade created by the Northern Railway:

Present average value of Land per acre, in nine Townships through which the northern half of the Northern Railway			
passes,	£9	0	0
Average value before the construction of the Railway,	1	10	0
Increase of value,	17	10	()
Increase due to the construction of the Railway,	-6	()	()
Increase due to other causes	1	10	()

The results are even more striking, when the calculations are made upon reliable data, for the fertile and long settled townships which border on the centre of the line, some thirty and forty miles from Toronto.

The present average value of farms per acre, within five miles of the Railway, and on either side, is £16. Between five and fifteen miles from the Railway it varies from £16 to £14 per acre. The average value before the construction of the Railway was from £8 to £6 per acre, giving an average increase in value of £8 per acre, since the construction of this great artery of communication. The increase solely due to the construction of the Railway may be estimated at one-half of the actual increase, or about £4 per acre within fifteen miles on either side of the track. To other causes, such as immigration, increase of population, and the sudden increase in the general value of land throughout Canada, the other remaining half of the total increase in value may reasonably be attributed. We arrive at a true conception of the amount of positive wealth which the construction of the Northern Railway has created in the counties through which it passes, if we confine ourselves merely to the average increase in the value of land, without touching upon the vast wealth of industry in its multitudinous forms, of husbandry, lumbering, milling, &c., &c. Assume the Railway to be 70 miles long, instead of 95, and the land lying within ten miles on both sides of the track will embrace, 896,000 acres, which at £4 an acre of increased value will give the gross sum of £3,584,000, springing from the mere construction of the Railroad alone. This sum amounts to more than thrice the cost of the whole line; and it is not an imaginary or even an unproductive capital, for it is continually helping to settle the more distant townships, and introduce by purchase into the older townships

through which the road passes, men of larger capital and of higher education than the original settlers. It is felt too in municipal affairs: in taxation, for instance, with a view to the improvement of roads and bridges, and building of school houses. Finally, it is felt in the growth of general prosperity and advancement in the conversion of luxuries into wants, which increasing wealth always induces; in the rapid increase of the consumption of foreign importations, in place of ruder homespun; and in a universal assumption of many of the desirable accompaniments of civilization and refinement, with a dash perhaps of their follies The instances which have been cited of the remarkable advantages which have resulted from the construction of a Railway through a country of not more than average fertility, apply with equal force to every section of Canada. If, however, with similar advantages of termini, whether from lake port to lake port, or from frontier to frontier, the additional acquisition of soil of higher fertility and climate of greater moderation, can be seenred, the more encouraging will be the results obtained. It cannot be doubted by any one, who in the full strength of five years experience considers the questions involved in our Railway policy, that most remunerative and unoccupied fields for Railway operation are still easily to be found in Canada.— Without any invidious selection, let us glance at one which has many recommendations.

The only practicable harbour on lake Huron, north of Goderich, is near the mouth of the Saugeen. Here there exist no connections beyond those offered by country mud roads in the fertile townships of the valley of the river of the same name, with either western or eastern markets. A Railway from Guelph to Saugeen would at once connect Lake Huron with Lake Ontario at Toronto, and ultimately with Lake Erie at Buffalo. It would pass through a region not only partially settled, but containing a soil of unsurpassed excellence, and a climate far less subject to excessive alternations of heat and cold than the country bordering the Northern Railway. The increase in the value of land due to the construction of such a line, would pay all cost in a year from its completion; and, judging from late experience, there can no longer be any question, that the wisest conceivable policy for the municipalities of the townships between Guelph and Saugeen would be to hasten on by liberal guarantees, the projection, progress, and completion of a work which would suddenly bring to them an industrious population, political

influence, and enduring wealth.

Whatever may be the future value of Canadian Railways considered as property only, there can no room for conjecture

as to the extent and nature of the advantages they impart to the sections of country they serve; neither can there be any doubt that the municipalities of fertile townships gain tenfold more by increase of property along a line of Railway, than they involve themselves by its construction, even when they become responsible for the whole of the cost of the work serving their townships. Our Railway policy offers none but the simplest of problems.— Our great through lines will be fed to excess by the continued growth of the great West. Our local lines will create relief for themselves by peopling the forests through which they pass, and giving that value to the timber and soil which the mere fact of their having become accessible instantly imparts to them. A bold and comprehensive Railway policy for Canada is in fact synonymous with rich harvests, vast immigration, and boundless inert wealth quickened into life. A timid and penurious policy implies a severe and dreary struggle with the stern progress of our age which few would be willing to encounter, and none but the weak and short-sighted hope to sustain.

APPENDIX C.

ILLUSTRATIVE OF THE RAPID GROWTH OF THE COUNTRY WEST OF THE LAKES, AND "THE LAKE TRADE" IN REFERENCE TO "THROUGH TRAFFIC."

EXTRACTS FROM THE REPORT OF JOHN B. JERVIS, ESQ., ON THE CAUGHNAWAGA CANAL.

To the Honourable the Commissioners of Public Works for the Canadian Government.

13th February, 1855.

THE WESTERN TRADE.—This is understood to be the trade that centres on the great Lakes, that form to a large extent the boundary between Canada and the United States, and seeking an Atlantic market.

From early engagement in the Public Works of the State of New York, my attention for more than thirty years has been directed to this trade. The idea gives the impression of magnitude. Its progress has outstripped anticipation, and I enter

upon its discussion with great diffidence.

Between the Lakes and the Ohio and the Mississippi Rivers above their confluence, and west of the latter from its confluence with the Missouri River, is embraced a vast extent of country that for natural fertility is not surpassed by any territory of equal extent on the globe. At the commencement of the present century this large territory was substantially an uncultivated wild,—and for the first quarter of this century, its settlement was mostly confined to the border of natural navigation.

Previous to the year 1825, the trade of the Lakes was trifling. The Eric Canal was opened this year, and the tide of emigration began to move with great force to the Lakes. Hitherto the commerce of the West had mostly taken the Mississippi River.

For fifteen years the influx of emigration was such as to consume the greater part of the surplus productions that would otherwise have sought the Lakes as its outlet to an Atlantic market.

Emigration has continued and still proceeds with an increased ratio, but the fixed population has so increased, that it is steadily and rapidly gaining in its surplus production over all domestic demands. The Eastern bound tonnage of the Eric Canal derived from the Lakes in the year 1836, was 54,219 tons, and in the year 1853, it was, 1,213,690 tons, or twenty-two fold in 17 years, and the territory for the most part is only in the infancy of settlement, but a large portion of its trade has taken the route of the Mississippi. Nearly all the natural navigation of rivers within its borders is connected with the Mississippi, and until artificial channels of navigation and railroads were opened, trade with the Lake route was restricted to such distances as could bear transportation to its ports, over common roads, and these on the rich soil of the West, were very inferior of their kind.

The railroad improvement has come in, and will prove a vast auxiliary to the Lake trade. It is eminently adapted to produce great influence on the commerce of the West. Their great facilities for light traffic, especially in passengers, and the favourable formation of the country for their construction, permits them to be made and supported, where a canal would be impracticable for want of water, or where, if made, the heavy trade to which it is adapted would not be sufficient for its support. Four years since, the only railroad connecting the waters of the Lakes with those of the Mississippi, were two in Ohio, connecting Cincinnatti with Sandusky and Cleveland or Lake Erie. The Galena Railroad was commenced at Chicago, and had extended about 40 miles. There are now three Railroads that connect Chicago or Lake Michigan with the Missouri. One at Galena, one at Rock Island and one at Alton, near the mouth of the Missouri. Other railroads are made and in progress that will more or less affect the Western trade. Their progress within the last four years has been unparalleled, and though now checked by the stringency of monetary affairs, they will be carried forward with little delay to meet the legitimate wants of a growing commerce. By an inspection of the Railway Map, it will be seen, the roads generally point to the Lake Ports, and their promoters look to the Lake trade as their main reliance for traffic.

The effect of canals and railroads is to open greater facilities for intercommunication, extend the settlement of the country from the banks of navigable streams, and cause it to spread over the whole surface, causing thereby a general increase of trade. This will greatly amplify the volume from that portion which has heretofore sent its trade to the Lakes, while it will extend its area to sections heretofore tributary to other routes. The Rock Island Railroad was the first to connect the Lakes with the Mississippi. It was opened in February 1854, and has had a large freight trade from that river. In the fall of 1853, I made a journey from the Mississippi at Rock Island West, 180 miles to Ft. des Moines. I found but few people on the route, but they were looking to the opening of Railroads to Chicago as their course of trade. And it may be remarked, that the Western people generally, for obvious reasons, prefer the Lake route.

It will be conceded that the City of New York is the principal centre of American commerce, and the products of the West that take the Mississippi route, have, to a large extent, to be carried to New York for a market. And as the Lake route has the advantage of more favourable climate, it must be preferred even

with some increase in the expense of transport.

The Pork trade has heretofore been mostly confined to the river cities. The Railroads will transfer the most of this to the Lake ports, and instead of Cincinnatti and St. Louis being the great packing establishments, we must look for them at Milwaukie, Chicago, Toledo, and Cleveland, as the great centres of packing for Pork and Beef.

In his able report on the enlarged Eric Canal for 1853, W. J. McAlpine, Esq., then Chief Engineer of New York, shows that the trade of the Mississippi, above the mouth of the Ohio will be

directed to the Lakes.

The diversion by routes that must cross the Alleghany range of Mountains, cannot materially affect the volume of Lake commerce.

The area of the territory tributary to the commerce of the Lakes, and lying east of the Missouri River, may be estimated at over 300,000 square miles, and that west of the Missouri at 250,000 square miles. The latter is yet a wild Prairie, and from its inland position will only be able to send the more valuable productions of Agriculture to an Atlantic market. But it has a fertile soil, and will be brought into cultivation, and must eventually contribute largely to swell the volume of the Western Lake commerce. Of the 300,000 square miles east of the Missouri not more than one-eighth is now occupied by settlement, with this sparse population, and its surplus production to a large extent drawn to supply its large ingress of new settlers; it furnished in 1853, an Eastern bound tonnage for the Eric Canal, as before observed of 1,213,690 tons—and a western bound tonnage, via Eric Canal during the same time of 261,752 tons. In the

progress of eastern bound trade, the tonnage on an average more than doubled, in each successive term of four years; for three terms from 1836, and from 1848 to 1853, a term of five years, the tonnage was doubled. At what rate it will proceed to increase hereafter it is difficult to conjecture. The tide of emigration is now moving with increased volume, -- improvements that will produce a rapid augmentation of this trade have just come into use, and others are in progress. The Erie Canal of New York will soon be enlarged, and by cheapening navigation from the Lakes to the City of New York will increase the Lake trade, not merely by extending the area of its drainage, but by embraeing a wider range of bulky or heavy articles, that will not now bear transportation. From the history of the past, and the prospects for the future, it is regarded safe to estimate, that the tonnage will be doubled in the next six years, and quadrupled in the next fifteen years. It will be seen that no special notice has been taken of the trade from the North side of the Lakes, nor of the trade that will come from the mineral sources in the Basin of Lake Superior. If this progress is realized, at the end of fifteen years the Eastern bound tonnage will be five millions of tons, and the Western bound over one million of tons, and the trade will not be more than half realized. If this trade as it may be expected to exist in fifteen years, was all to pass the Eric Canal, (the local trade of the Canal remaining as in 1853) the arrivals at tide water would be over three times larger than it was in 1853, or seven and a half millions of tons; and the total movement on this Canal would be nine millions of tons per annum. And although enlarged as now contemplated, that channel would be found wanting in capacity, for the convenient accommodation of so vast a trade.

'Fifteen years is not a long time to look forward to meet the growing wants of this trade, and especially when the evidences of its probable growth are so strongly indicated by its history, and the facts of its expanding power. Hitherto the most sanguine have not anticipated its progress.

THE FUTURE OF WESTERN CANADA.*

We lie like a wedge between them—New York, Pennsylvania, and Ohio on one side, Michigan and Wisconsin on the other—our communication by water complete with all that have been mentioned, and with the ocean, without obstruction, by

^{*}The Canadian Almanac for 1856, page 33.

means of the St. Lawrence; or by numerous Railroads and Canals with the Atlantic sea-board. And herein lies our strength and the hopes of our future. Set aside the advantages of position in relation to the neighbouring States of the Union and the ocean, and the progress of this country would be like the slow, yet steady flow of the rivers which glide to the south, compared with the tumultuous rush of those we see hurrying on to the north and west. And what use have we yet made of this great advantage of position? little indeed as yet; but the beginning has been auspiciously entered on, and this advantage will suddenly and convulsively increase to results which at the first glance appear too astonishing and overwhelming for belief. To our east lies a vast consuming country, incapable of satiety; from its circumstances ineapable of supplying its own wants; and from a spirit, nay, a necessity of accumulation, always seeking. and instantly absorbing whatever we have to offer. To our South and West, and North-west, lies an equally vast producing country, capable of indefinite extension; and from a spirit of restless activity, and an unquenchable thirst for gain, always producing and setting in motion the accumulations of its industry to supply the necessities of the East, and receiving, as we do, in return, the varied results of mechanical skill. We lie between these extremes; the nearer they are brought to one another, the greater gain to both, and the greater stimulant to both to pursue their incessant interchange of rude industry on the one hand, and capital and skill on the other. We know how astonishingly the influence of rapid and uninterrupted communication between distant centres of industry is developing itself around us; to whatever country we look, examples without number start up before us in testimony of the life and vigour which is infused as soon as rapidity and perfect freedom of communication is established.

The relation of our country to the North-western and Western States of the Union, is most remarkable; and in order to understand this important question in its wide extent, you must familiarize yourself with a few general truths which a little quiet reflection will render almost self-evident. What has led to the construction of the Sault Ste. Marie Canal. You will answer, the great mining region of Lake Superior—eopper in inexhaustible abundance, and iron distributed in mountain masses, not only on the shores of that cold fresh-water sea, but profusely scattered throughout Northern Michigan and Wisconsin. Think you that the vast demand for iron in the new Northwestern States will allow those rich mines of metal to remain idle. Will it be cheaper to bring the coal of Illinois and Ohio

to Chicago, Milwaukee, Superior City, or take the ore to the Eastern States, smelt it, manufacture it, and then send it back again to the far West. No-the region of the great Lakes will manufacture its own railroad iron as soon as speedy and cheap means of communication are opened out and maintained. From Chicago or Milwaukee to the mining region of Lake Superior, a Railroad is now contemplated, and a few months on this continent will teach you that to "contemplate" in such matters signifies to "construct." From Milwaukee to Copper-range is about 350 miles; part of the line runs through the richest iron region, and when all things are dependent upon iron, the south shore of Lake Superior must soon find that population and industry for which it is so remarkably adapted; and then follows the North, the great mineral region of Western Canada. But look beyond the Lakes—see Iowa, Minnesota, Wisconsin and Illinois —what are they to do with their surplus grain? It must all seek the Lake Ports. It must be stored where there is no prospect of growth and fermentation taking place. The damp and warm voyage over the heated waters of the Gulf Stream is impracticable. The Mississippi and its affluent the Missouri, are useless in great part as avenues for the exportation of the wheat of the West. This has led to that wonderful starwork of Railways which radiates from Chicago—for, as a general rule, all traffic follows the direction of a leading traffic. Extending into the rich prairies of Illinois. Indiana, Iowa and Wisconsin, not less than thirteen different Railways radiate from Chicago—a city which has sprung up as it were in a night; in 1840 it had 4,479 inhabitants—it now embraces 83,000 souls; an increase absolutely without parallel on this continent, and yet a true reflection of the commerce, industry and activity of the West. In like proportion, Railways from Milwaukee and from Green Bay ramify into the interior. The same argument applies to the Lake Ports of Huron, St. Clair, and Erie, resulting in the general proposition that the region of the Great Lake draws to itself a mighty traffic, which naturally belongs to other water sheds. Once on the Lakes, whither do these accumulations tend? You will answer, to the sea-board, for home consumption, or for exportation to Great Britain, Ireland, or the West India Islands. But in seeking the seaboard, they have to find the easiest and speediest route in their descent to the sea level. In Lake Superior, Lake Michigan, and northern parts of Lake Huron, every cargo of western produce is 570 feet above the sea. It must be let down step by step until it reaches this universal level. This may be effected by a short, safe, and rapid step, nearly in a straight line or it may be effected by a circuitous route, and by a long and often

precarious descent. No one doubts that the more rapid and safe the communication between East and West, the more sudden and clastic will be the ebb and flow of that mighty commercial stream whose course, if wisely, though ever so gently, directed in the first instance, will soon carry away every obstruction and impediment, to its perfect freedom. Now look at Western Canada, and see the barrier which this wedge-shaped country introduces between the east and west; happily it is only a physical barrier; formerly it was also a political and commercial one. As a physical barrier what has high art and generous enterprise done to bring nearer to one another the fruitful west and the insatiable east. We have now in active operation the Great Western, (Lake Huron and Lake Ontario at Hamilton; and State of New York at Suspension Bridge, 220 miles,) the Northern Railway (Lake Huron and Lake Ontario 96 miles,) traversing the barrier; and the Welland Canal, (Lake Erie and Ontario,) letting down the produce of the west to the level of Lake Ontario, without breaking bulk. Are these means of communication taxed to the full: the Welland Canal thronged to the utmost, answers for itself; the Great Western Railway for half its length as a mere preliminary step, has to be immediately doubled in capacity, by means of a new branch from London to Sarnia, with double track from London to Hamilton; the Northern, which a year ago was thought to be a weak and exotic fledgling, has already taken wing with a power and vigour indicative of great inherent strength; the Lake Huron and Buffalo Railway, the Anglican name for the late Buffalo, Brantford and Goderich Railway (Lake Eric to Lake Huron 157 miles, 82 now open,) will be finished in a twelvemonth; the Grand Trunk which stretches its long length through the centre of the most fertile part of Western Canada, and thence onward to the sea, will soon unite the upper lakes with the Atlantic; and yet all these connecting links between the west and east will be insufficient to serve that vast commercial expansion which treads so rapidly upon, and fills to repletion the present artificial means of communication. There are additional stupenduous works in "contemplation." You may well smile at the interpretation given to the word "contemplate" with us, yet think that all the railways just named were only "contemplated" some three or four years ago, and now they may be said to be constructed. So in five years to come you will find that vast change to have occurred in relation to these new projects, which the wonderful growth of the Great West is now forcing upon our attention. Whatever each succeeding year is doing for the Great West it is doing for Canada. It is not only increasing population by the influx of strangers, to a degree totally unparalleled, but opening out new fields of enterprise, and establishing new centres of industry, where five years before existed desolate and uninhabited wilds. Every mine opened on the South shore of Lake Superior, benefits us on account of our geographical position; and whatever may be said of the prospective wealth and importance of that extensive mineral region of our neighbour's may be said with equal confidence of our own. So with respect to every additional acre cultivated in Iowa or Minnesota; it adds its mite to the traffic which is filling to excess every avenue of communication we have opened between the west and east; and our future difficulty will be to keep pace with the increase of those accumulations which will seek to be set in motion from the commercial centres of the north-western lakes.

"OUR RAILWAY POLICY."*

It has often been asserted that the geographical position of Canada, and particularly of the Western Peninsula, is of the utmost value to her future progress and prosperity. Her fertile territory is thrust like a wedge into the heart of a foreign country of vast extent and unequalled capabilities. The growth of the Western States, coupled with their dependance upon the eastern markets for the consumption of their surplus productions, invests all means of communication with an interest proportional to the facilities they afford for rapid and cheap transit. No wonder then, that the West, seeking the Eastern seaboard, should anxiously endeavour to secure a short route across the territory of Canada. Hence it is that the through traffic forms so important an item in the business of Canadian railways, and is always an object of the highest interest in the projection of our new lines. The main lines, it will be observed, on inspection of the map, run from frontier to frontier, or from the port of an upper to the port of a lower lake. Detroit to Hamilton and Niagara river; Goderich to Buffalo; Sarnia to Toronto; Collingwood to Toronto; and how fully do the returns, of the great links of communication, which have had a fair trial indicate the source of the support they already receive, and to which they look forward with increasing confidence. The capabilities of the Great Western Railway are already strained in the endeavour to conduct

^{*}The Canadian Almanac for 1857, page 30.

the business which presses upon it from the West. The comparative growth of traffic since the opening of the line has been very remarkable. A glance at the following tables will show the rapidity and stability of this progress:—

HALF YEAR ENDING	Value of Local Traffic.	Value of Foreign Traffic.
31st July, 1854	£79,695	£70,400
31st January, 1855	104,609	90,109
31st July, 1855	108,818	140,374
31st January, 1856	157,540	162,325
81st July, 1856	169,741	143,734

Starting with the proposition that the great lines of through traffic from frontier to frontier, rest upon the most secure basis, we may contemplate with all confidence the construction of the great Southern Line, from Buffalo to Amherstburg, and another Northern Line from Guelph to the mouth of the Sau-We may advance a step further, and in pursuance of a bold Railway policy, looking to the future rather than to the immediate present, hint at the construction of a Sault Ste. Marie and Ottawa trunk line, to bring the boundless mineral region of the Lake Superior basin, within the limits of our industry, and to pay tribute to our enterprise. No one, however sanguine, ventures to predict the political importance of the Northern valley of the Mississippi, and East of the valley of the Missouri, twenty years hence. We vainly endeavour to picture its gigantic future, in contemplating its wonderful rivers, life arteries of communication, traversing valleys of wide extent and endless fertility; its huge coal beds, easily accessible, and offering, even at the surface, the means of making available the inexhaustible treasures of iron, copper and lead, which spread themselves out South-West and West of the Lake Superior Basin, and oppose, by their bountiful distribution, many of the disadvantages of climate and isolation. The Missouri River, in latitude 44°, flows for hundreds of miles in a Northerly and North-Westerly direction, through the longitudinal centre of North America, and now marks the extreme limits of settlement and civilization. In ten years hence, the Missouri, North of Council Bluffs, will be thickly settled as far as the great Westward bend; and Minnesota, lying between that mighty stream and Lake Superior, will account itself an old State.

* * To be convinced that we live amidst the most productive elements of Railway progress and enterprise, we have only to consider the present position of the commerce of the

Lake region; of our own country, and the shores by which we are on three sides invested. Beginning with Lake Superior, we find that in the fall of 1854 the Sault Ste. Marie Canal was completed, and during the season of 1855, copper and iron to the value of \$2,700,000 passed through it. Seven States of the Union border the Lakes on our shore, Western Canada embraces them on the other. The population of the seven Lake States, according to the census of 1850, was 9,784,550, or 16,062 inhabitants more than the aggregate of the twenty-four remaining States of the Union. The total value of the Lake commerce was \$608,310,320 in 1855. This commerce was conducted by 9,000 vessels, American and Canadian, having an aggregate tonnage

of 3,561,249 tons.

Ample practical proof has been afforded during late years that the Northern shores of Lake Huron are well adapted for agricultural purposes, and that inland valleys, some few miles from the Lake, support a magnificent growth of hardwood timber, a sure sign of the adaptation of climate and soil to the most important operations of husbandry. A great mining population is rapidly pouring into the Lake Superior Basin, and the country of the ancient miners resounds once again with the clamour of human industry, assisted by all the energy, enterprise and ingenuity of the Anglo-Saxon race. How little is generally known of Pembina, and the settlements on the Red River, between the 48th and the 50th parallel of latitude; and yet, in the valley of that remote river, a population of 9000 find abundant and well recompensed employment in the cultivation of wheat, potatoes, and other agricultural productions. Even at Fort Garry, eighty miles north of Pembina, and on the borders of Lake Winnipeg, forty bushels of wheat to the acre are raised; and like the valley of our own Thames, the yield is still fifteen to twenty bushels, after twenty years of cropping; and this fertility and luxuriance obtains 200 miles North of the latitude of the South shore of Lake Superior.

AVENUES OF WESTERN TRADE.*

Of the future greatness of the trade of the North-West, we need neither illustration nor argument to convince us. Its development during the last twenty years, from nothing to a

^{*} Hunt's Merchant's Magazine, Aug. 1856. By T. C. Clarke, Esq., C. E.

value of between three and four hundred millions of dollars, is of itself a fact so astonishing, that we are prepared to accept, without incredulity, the most startling speculations. The growth of Chicago, the chief collecting point of this region, from a miserable village of log huts, with a handful of the usual hangers-on of a military out-post, to a great city of nearly one hundred thousand inhabitants, whose daily arrivals and departure of vessels, is exceeded by New York alone—is another Western phenomenon which puzzles the sober farmers of New England, and the easy going planters of the Old Dominion.

It was not until the opening of the Eric Canal in 1825 cheapened the precarious and expensive means of transport then existing to the lower end of Lake Eric, that the tide of emigration set in with any force to the North-West. From that period until 1840, the exports of this region were small; the surplus products being consumed by the ever increasing crowd of new

settlers.

During the last fifteen years, time and the effect of judicious public improvements, have so far developed the resources of this country, that the value of the Lake trade had increased between 1840 and 1850 from \$60 to \$300,000,000; and if it has continued to increase in the same ratio, must now have attained the value of \$450,000,000. The total number of tons arriving at tide water from the Western States, by the Eric Canal, has increased from 158,148 tons in 1840, to 1,213,690 tons in 1853. It is estimated by Mr. John B. Jervis, that this trade will double in the next six, and quadruple in the next fifteen years; so that in 1870 there will be an Eastern movement of five millions of tons, the surplus products of the North-West; and were all this business done through the Eric Canal, the total annual movement would exceed nine millions of tons.

That this estimate is a safe one, and rather errs in being under than over the mark, no one will doubt who considers how small and insignificant a part of the vast territory tributary to the commerce of the Lakes, is now occupied and under cultivation. It is safe to say that out of a region, variously estimated to contain from 550 to 700,000 square miles of fertile territory, not one-twelfth part is now occupied, and that but sparsely. From a country capable of supporting 20,000,000 of people, what may

we not expect?

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